

CURRICULUM VITAE: Prof. ADEYEMI, B.

1. **Names in Full:** ADEYEMI, Babatunde.
 2. **Place and Date of Birth:** Aisegba Ekiti, Ekiti State, 7TH April, `1963
 3. **Nationality:** Nigerian
 4. **Marital Status:** MARRIED
 5. **Number and Ages of Children:** Three (23, 18, and 16 years).
 6. **Permanent Home Address:** Apatapiti Layout, off Aule road, Akure.
 7. **Present Postal Address:** Department of Physics
Federal University of Technology
PMB 704
Akure. Ondo State, Nigeria.
E-mail: tundebx@yahoo.com
badeyemi@futa.edu.ng
Tel: +234 803 389 8917
 8. **Present Employment, Status and SALARY (both in level and amount):**
Professor, UASS 07/08,
 9. **Educational Institutions Attended (with dates):**
 - (a) **Primary:** St Cyprian Catholic Primary School, Aisegba – Ekiti, 1968-1975
 - (b) **Secondary:** Aisegba Community Grammar School, Aisegba Ekiti, 1976-1981
 - (c) **Tertiary:**
 - i) University of Ilorin, Ilorin, Nigeria, 1995-2004
 - ii) University of Ilorin, Ilorin, Nigeria, 1992-1995
 - iii) University of Ilorin, Ilorin, Nigeria, 1987-1990
 - iv) Ogun State College of Education, Ijebu Ode, Nigeria, 1983-1986.
 10. **Qualifications (with dates):**
 - (a) **Academic:**

Ph. D Physics,	2004
M.Sc. Physics,	1995
B.Sc (ed) Physics,	1990
N.C.E Physics/Maths,	1986
 - (b) **Others (if any):** None
 11. **Distinctions:** None
 12. **Membership of Professional Bodies:**
 - (i) Nigerian Institute of Physics
 - (ii) Nigerian Union of Planetary and Radio Sciences
 - (iii) Science Teachers Association of Nigeria
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- (iv) Atmospheric Research Network of Nigeria. OAU Ile-Ife.

13 Review of Academic and Professional Journals.

- (i) International Journal of Climatology, John Wiley, U.K.
(ii) Nigeria Journal of Pure and Applied Physics, Nigeria.
(iii) Journal of Sustainable Technology, Nigeria.

14 External Examinership:

- (a) Undergraduates: Not Applicable
(b) Postgraduates: OAU Ile-Ife

15 Work Experience:

(a) University:

- (i) Part-Time Lecturer (1993-1996) University of Nigeria Nsukka Sandwich Program, in Affiliation with Ondo State College of Education, Ikere Ekiti.
(ii) Assistant Lecturer (1995-1999) Department of Physics, Federal University of Technology, Akure.
(iii) Lecturer 1 (2002- Sept. 2005) Department of Physics, Federal University of Technology, Akure.
(iv) Sabbatical as Senior Lecturer (October 1st, 2006- September 30, 2007) at the Department of Physics, Redeemers' University, Redemption Camp, Ogun state.
(v) Senior Lecturer (2005- 2009) Department of Physics, Federal University of Technology, Akure.
(vi) Reader (2009- 2012) Department of Physics, Federal University of Technology, Akure.
(vii) Professor (2012- till date) Department of Physics, Federal University of Technology, Akure.

(b) Others:

Graduate Assistant (1992-1995) Ondo State College of Education, Ikere-Ekiti

16 Courses Taught at the University Level:

(a) Undergraduate level:

First Semester: Mathematical Methods in Physics (PHY 505), Practical Physics (PHY 107), Experimental Physics (PHY 208), General Physics 1 (PHY 101) Thermal Physics (PHY 205).

Second Semester: Statistical Physics (PHY 306)

(b) Postgraduate Level:

Second Semester: Lower Atmospheric Physics (PHY 840), Atmospheric Radiation (PHY 844)

17 Postgraduate Supervision:

- (a) Masters degree:
Major Supervision**

- (i) Emmanuel Israel, Tropospheric Refractivity over Nigeria using Satellite data. (completed, 2011)
- (ii) Mamudu Ocholi, Modeling Solar Radiation over Nigeria using Complex auto regression (completed, 2014)
- (iii) Onujagbe, I. Paul, Columnar Refractivity and Refractivity Gradient Distribution over Nigeria using NOAA -15, -16 and -18 Satellites data (completed, 2015)
- (iv) Macaulay, Olumuyiwa Sunday, An ARIMA model and Monthly mean Temperature Forecast over Nigeria (completed, 2015).

- (vi) Ojo Olushola Samuel, Multi-regressional modeling of Solar Radiation over Nigeria. (completed, 2015)
- (vii) Adenuga, K.P., Multi-regressional modeling of Precipitable Water Vapour over Nigeria (completed, 2015) and others.

(b) PhD degree:

Major Supervision

- (i) Emmanuel Israel, Tropospheric Refractivity over Nigeria using Radiosonde and Satellite data (Completed)
- (ii) Ojo Olushola Samuel, Influence of Net Solar Radiation on the Evolution of Tropospheric Climate Phenomena over West Africa (Completed)
- (iii) Abe Oladipo Emmanuel, Assessment of Global Navigation Satellite System Positioning Accuracy in Equatorial and Low Latitude African Region using Ionospheric measurements (Completed).

18 Research in Progress:

(a) On-going research:

Atmospheric Pressure Forecast over Nigeria using ARMA Model Technique.

(b) Manuscript submitted for Journal publications.

19 Fellowship Awards: Visiting Scientist to DWD Offenbach, Germany (Aug-Sept. 2008)

20 Research Grants and other Grants: (Specify amount)

(a) National:

- Obtained Senate research grant of ₦50,000:00 of the University of Ilorin for research on Intertropical discontinuity.

(b) International: None

21 Publications:

(a) Thesis/Dissertations:

- (i) Modelling of Inter-tropical discontinuity (ITD) over Nigeria, using radio meteorological parameters of the troposphere (Ph.D).
- (ii) Trends in the Variations of Surface Water Vapour Density in some southern stations in Nigeria. (1987-1991) (M.Sc.)

- (iii) Influence of students attitude on their performances in Physics in Ogbomosho Local Government Council, Oyo state, Nigeria. **B.Sc (Ed) Physics Thesis**

(b) Books (Peer-reviewed):

i) Authored Books:

- (1) B. Adeyemi (1995): Electromagnetism for Beginners. Ore- ofe Publishers, Nig. Ltd. Okeluse. Nigeria.
- (2) B. Adeyemi (1997): Thermal and Statistical Physics. Titilayo Educational Books Nig. Plc Box 3624, Akure, Nigeria.
- (3) A. B. Rabi, **B. Adeyemi**, E O Ogolo, S.E. Falodun, S S Oluyamo, J. S. Ojo, and O.P. Faromika (2007): Fundamentals of Mechanics and Heat. Femo Bless publications, Akure.

(ii) Edited Books:

None

(iii) Contribution(s) to Books:

None

(c) Journal Articles (*asterisk those that have appeared since your last promotion*):

- (1) B. Adeyemi and Y.A Babalola (2000): Diurnal variations of absolute humidity at Ibadan and Minna in Nigeria. *J. Sci. Engr. Tech.* **7 (2) pp2371-2375. (Nigeria, 60% contribution)**
- (2) Y.A Babalola and B. Adeyemi (2000): Midnight and Midday variability of Total electron content (TEC) at an Equatorial Station. *J. Sci. Engr. Tech.* **7(2), 2349-2356. (Nigeria, 40% contribution)**
- (3) B. Adeyemi and Y.A Babalola (2001): Evaluation of the Performance of some Fatty- Base local oils as cutting fluids in the machining of Mild steel. *African Journal of Science*, **3(2), 780 - 787 (Nigeria, 90% contribution)**
- (4) B. Adeyemi and D. Adenugba (2001): Temporal and Spatial Variations of Atmospheric Vapour Density at Ibadan, Ilorin and Kano. *J. Sci. Engr. Tech.*, **10(1)p4720 (Nigeria, 60% contribution)**
- (5) B. Adeyemi and T.O. Aro (2004): Variation in surface water vapour density over four Nigerian stations. *Nigeria Journal of Pure and Applied Physics*. **(3) 46-55. (Nigeria, 90% contribution)**
- (6) B. Adeyemi (2004): Tropospheric radio refractivity over three radiosonde stations in Nigeria. *Ife Journal of Science. OAU Ile-Ife*. **6(2) p167-176 (Nigeria, 100% contribution)**
- (7) B. Adeyemi (2005): Columnar Radio Refractivity of Troposphere at Oshodi and Kano. *Global Journal of pure and applied sciences, Calabar. Nigeria*, **11(2), p305-307.(Nigeria, 100% contribution)**
- (8) Rabi, A. B., **Adeyemi, B.**, Ojo, J. (2005): Variability of Solar activity and surface air temperature variation in tropical region. *Journal of African Meteorological Society*, **6(3), p83-91.(Kenya, 30% contribution)**

- (9) B. Adeyemi, and K.D Adedayo (2005): Atmospheric Radio Refractivity And Water Vapour Density At Oshodi And Kano, Nigeria. *Nigeria Journal of pure and applied Sciences. FUT Akure. vol 4, p11-15*(Nigeria, 60% contribution)
- (10) **B. Adeyemi**, and O.E. Adeyemi (2005): Variation of water vapour content over Nigeria. *Zuma Journal of Pure and Applied Physics Abuja, Nigeria, 7(2), p219-224.* (Nigeria, 90% contribution)
- (11) **B. Adeyemi**, and E.B Babatunde (2005): Spatial distribution of surface water vapour density over Nigeria. *Journal of Research in Physical Sciences, 1(1), 69-71* (Nigeria, 90% contribution)
- (12) **B. Adeyemi** (2006): Surface Water Vapour Density and Tropospheric Radi Refractivity Linkage over Three Tropical Stations in Nigeria. *Journal of Atmospheric and Solar-Terrestrial Physics, United Kingdom 68(2006), 1105-1115.* (U.K, 100% contribution)
- (13) **B. Adeyemi** and T. Ewetumo (2006): Intra-Layer (Low-Level/Upper Level) Refractivity Relations Over Lagos And Kano. *Global Journal of pure and applied sciences, Calabar, Nigeria 12(3), p403-408.*(Nigeria, 60% contribution)
- (14). **B. Adeyemi** and E. B. Babatunde (2007): Surface Water Vapour Density Distribution over Nigeria. *The International Journal of Meteorology, United Kingdom, 32(323),291-301*(U.K, 90% contribution).
- (15) ***B. Adeyemi** and Fasoranbaku, A.O. (2008): Forecasting of Daily Mean Air Temperature over Nigeria using Stochastic processes. *ScienceResearch Annals,4(1), 105-113,* (Nigeria, 50% contribution).
- (16) **B. Adeyemi** (2009): Empirical modelling of layered integrated water vapour using surface mixing ratio in Nigeria. *Journal of Applied Meteorology and Climatology, American Meteorological Society, 49, 369-380* (USA,100% contribution).
- (17) Ajayi, O.S and **Adeyemi, B.** (2009): Empirical Modelling of Surface Refractivity over Akure using Ground Electrical Conductivity. *Nigeria Journal of pure and applied Sciences,5(1) 24-27*(Nigeria, 50% contribution).
- (18) Ogolo, E.O. and **Adeyemi, B.** (2009): Variations and Trends of Some Meteorological Parameters at Ibadan. *The Pacific Journal of Science and Technology, 10(2), 981-987,*(USA,50% contribution).
- (19) ***B. Adeyemi** (2009): Empirical Formulations for Inter-Layer Precipitable Water Vapour in Nigeria. *The Pacific Journal of Science and Technology, 10(2), 35-45,* (USA, 100% contribution).
- (20) ***B. Adeyemi and** Israel Emmanuel (2011): Monitoring Tropospheric Radio Refractivity over Nigeria using CM-SAF data derived from NOAA - 15, -16 and -18 Satellites. *Indian Journal of Radio and Space Physics, 40, 301-310,* (India, 70% contribution)

- (21) ***B. Adeyemi (2012):** Total Integrated Water Vapour Forecast over Nigeria using Multivariate Linear Modeling Technique. *Nigeria Journal of Pure and Applied Physics*, (Nigeria, 100% contribution)
- (22) ***B. Adeyemi (2012):** Modeling Surface Air Temperature over Nigeria using Fourier series. *Science Focus*, 17 (1) pp 1-12 (Nigeria, 100% contribution).
- (23) ***B. Adeyemi and Schulz Joerg (2012):** Analysis of water vapor over Nigeria using radiosonde and satellite data. *Journal of Applied Meteorology and Climatology, American Meteorological Society, Vol 51 pp 1855-1866 (USA, 80% contribution)*
- (24) ***B. Adeyemi and Emmanuel I. (2012)** Radio Refractivity Gradient over Nigeria using CM-SAF satellite retrieved Data, *Nigeria Journal of Technological Research Federal University of Technology Minna Nigeria. 7 (2) (Unpaged).*
- (25) Emmanuel I., **B. Adeyemi** and Adedayo L.D. (2013) Regional variation of columnar refractivity with meteorological variables from climate monitoring satellite application facility (CM-SAF) data over Nigeria, *International Journal of Physical Science, Vol. 8 (17) Pp 825–834. DOI: 10.5897/IJPS2013.3852(USA; 30% CONTRIBUTION)*
- (26) ***B. Adeyemi and E.O, Ogolo (2014):** Diurnal and Seasonal Variations of Surface Water Vapour Density over some Meteorological Stations in Nigeria. *Ife Journal of Science. OAU Ile-Ife. In Press (Nigeria, 50% contribution)*
- (27) **B. Adeyemi** and Ojo. O.S. (2014) Empirical Modelling of Solar Radiation for selected cities in Nigeria using Multivariate Regression Technique. *African Journal of Environmental Science and Technology; 8 (10) Pp 582–595.: (OFFSHORE; 60% CONTRIBUTION)*
- (28) Ojo O.S. and **B. Adeyemi** (2014) Estimation of Solar Radiation using Air Temperature and Geographical Co-ordinates over Nigeria. *The Pacific Journal of Science and Technology 15 (2) Pp 78–88 (USA; 40% CONTRIBUTION)*
- (29) **B. Adeyemi** and Raheem Muideen O. (2015) Neural Network Autoregressive Model with Exogeneous Input Technique and Radio Refractivity Analysis over Nigeria. *International Journal of Scientific Research and Education. Vol. 3 (9) pp 4351–4369. DOI: <http://dx.doi.org/10.18535/ij sre/v2i9.07>. (USA; 60% CONTRIBUTION)*
- (30) **B. Adeyemi** and Ogidan Rapheal (2015), Evaluation of Specific Humidity over Nigeria using Artificial Neural Network. *Journal of Environment and Earth Science. Vol. 5 (17) pp 60–77. (OFFSHORE; 60% CONTRIBUTION)*

- (31) Israel Emmanuel and **Babatunde Adeyemi** (2016), Statistical Investigation of Clear Air Propagation in the Coastal and Plateau Regions of Nigeria. *Journal of Progress in Electromagnetics Research Letters*. Vol. 64, 37-41, (OFFSHORE; 40% CONTRIBUTION)
- (32) Israel Emmanuel, **Babatunde Adeyemi**, Ogolo E.O and Adediji A.T. (2017), Characteristics of the Anomalous Refractive Conditions in Nigeria. *Journal of Atmospheric and Solar – Terrestrial Physics*. Vol. 164, 215-221, (OFFSHORE; 25% CONTRIBUTION)
- (33) **B. Adeyemi** and M.I. Akerele (2017), The Effect of Seasonality and Stationarity of Specific Humidity Forecast over Nigeria. *Journal of Atmospheric and Solar – Terrestrial Physics*. Vol. 17, 30143-30148, (OFFSHORE; 60% CONTRIBUTION)
- (34) **B. Adeyemi**, E.O. Ogolo and M.P. Ajakaye (2017), Parameterization of Convective Heat Fluxes over Ile-Ife Using Bowen Ratio, Aerodynamic Gradient and Aerodynamic with Resistance Techniques. *International Journal of Applied Science*. Vol. 4, No2:11 (DOI: 10.21767/2394-9988.100061) (OFFSHORE)
- (35) **B. Adeyemi** and Abidoye O.O (2018), Diurnal Distribution of Absolute Humidity over West Africa using Data Retrieved from Era-Interim. *Nigeria Journal of Pure and Applied Physics*,
- (36) O. S. Ojo, **B. Adeyemi** and E.O. Ogolo Assessment of the Night -time and day-time Radiative Fluxes Balance on Seasonal time scales over West Africa. *Journal of Atmospheric and Solar – Terrestrial Physics*. 191 (2019), 1-13
- (37) I. Emmanuel†, K. D. Adedayo, **B. Adeyemi**, O. S. Ojo (2019): Meteorological parameter anomalies and anomalous radio propagation over Nigeria. *Nigeria Journal of Pure & Applied Physics*, Vol. 9, No. 1, pages 34–40.
- (38) O.S. Ojo, **B. Adeyemi**, E.O. Ogolo (2019): Assessments of the night-time and daytime radiative fluxes balance on seasonal timescale over West Africa. *Journal of Atmospheric and Solar–Terrestrial Physics* 191 (2019) 105048
- (39) Emmanuel I., **Adeyemi, B.**, Adedayo, K. D. and Emmanuel, G. O. (2020): Morphology and Variation of radio signal trapping aloft in tropical climatic region using remote sensing data. *Telecommunication and Radio Engineering* 2020, vol. 79(2), 117-127.
- (40) Ojo, O. S., **Adeyemi, B.** and Oluleye, D.O. (2020): Artificial Neural Network models for prediction of net radiation over a tropical region. *Neural Computing and Application* 2020.

(41) Ojo, O.S., Emmanuel I., **Adeyemi, B.** and Ogolo, E.O. (2021): Effect of the radiation balance on warming occurrence over West-Africa. *Scientific Africa*, 2021.

(42) Ojo, O. S., **Adeyemi, B.** and Oluleye, D.O. (2021): Geostatistical Distribution of Net Radiation at different sky conditions over West-Africa. *Earth System and Environment* 2021.

(d) Papers already accepted for publications (only in the last three years):

(e) Published Conference Proceedings:

(43) **B. Adeyemi and** Fasoranbaku, A.O. (2009): Daily mean air Temperature Forecast over Nigeria. **Nigerian Meteorological Society Proceedings**. International conference on climate change and sustainable development, Osogbo, Nigeria, Dec. 6th -11th 2009, 108-113. (Nigeria, 80% contribution)

(44) Emmanuel I, and **B. Adeyemi (2010)** Evaluating Tropospheric Refractivity over Nigeria Using Data from NOAA Satellites. **NURS 2010 conference proceedings** 100-112. (Nigeria, 50% contribution)

(45) B. Adeyemi, I. Emmanuel and O. Ojo (2014) Analysis of Data on Integrated Water Vapour over Nigeria using Radiosonde and Data from Era-Interim. Poster presentation at CLIMATE SYMPOSIUM held at Darmstadium, Darmstadt, Germany, 13-17 October 2014.

(46) O. S. Ojo and **B. Adeyemi**, "Land Surface Temperature Modelling over Geoclimatic Regions of Nigeria using Soft-computing Intelligence Techniques," 2020 International Conference on Decision Aid Sciences and Application (DASA), Sakheer, Bahrain, 2020, pp. 726-731, doi: 10.1109/DASA51403.2020.9317199.

(f) Monographs/Technical Reports: Not Applicable

22 Conference(s) Attended with Dates/ or Papers Presented (*non-scorable*)

(i) 20th Annual Conference of Science Association of Nigeria held at the University of Ibadan, Ibadan, Nigeria, September (2001)

(ii) 20th Annual Conference of Science Association of Nigeria held at the University of Ibadan, Ibadan, Nigeria, September (2001)

(iii) 25th Annual Conference of Nigerian Institute of Physics held at the Sheda Science and Technology Complex, Sheda, Abuja (18-21 September, 2002)

(iv) 25th Annual Conference of Nigerian Institute of Physics held at the Sheda Science and Technology Complex, Sheda, Abuja (18-21 September, 2002)

(v) 25th Annual Conference of Nigerian Institute of Physics held at the Sheda Science and Technology Complex, Sheda, Abuja (18-21 September, 2002)

- (vi) 1stInternational workshop on Nigeria Sat one organized by the Nigerian Union of Planetary and Radio Sciences in collaboration with IUGG held at the University of Lagos, Nigeria, September (2004)
- (vii) 1st International workshop on Nigeria Sat one organized by the Nigerian Union of Planetary and Radio Sciences in collaboration with IUGG held at the University of Lagos, Nigeria, September (2004)
- (viii) 20th Annual Conference of Nigeria Meteorological Society held at the University of Agriculture, Abeokuta, Nigeria, September (2004)
- (ix) 29th Annual Conference of Nigerian Institute of Physics held at the University of Nigeria, Usukka (16-19 August, 2006)
- (x) 29th Annual Conference of Nigerian Institute of Physics held at the University of Nigeria, Nsukka (16-19 August, 2006)
- (xi) 29th Annual Conference of Nigerian Institute of Physics held at the University of Nigeria, Nsukka (16-19 August, 2006)
- (xii) 2008 EUMETSAT Meteorological conference held in Darmstadt, Germany (8th-12th Sept., 2008).
- (xiii) 2010 EUMETSAT Meteorological conference held in Cordoba, Spain (19th-23rd Sept., 2010).
- (xiv) 4th User Workshop of the EUMETSAT Satellite Application Facility on Climate Monitoring (CM SAF), Grainau, Germany (10-12 March, 2014).
- (xv) The Climate Symposium 2014 held at the Darmstadium, Darmstadt City, Germany (13th – 17th October, 2014).
- (xvi) The 2017 American Geophysical Union Fall Meeting held at the New Orleans Louisiana, USA from 11-15 December 2017.
- (xvii) 2019 Joint Satellite Conference of EUMETSAT and America Meteorological Society held at Boston MA, between 28th September and 4th October, 2019

23 Extra Curricular Activities:

(a) Within the University:

- (i) Department of Physics, FUTA, Examination officer. 2004 - 2006
- (ii) Member of Departmental registration committee. 2000-2004
- (ii) Member of Senate, FUTA, 2006 – 2008; 2012 till Date
- (iii) Member of Senate, FUTA, 2011 till Date
- (v) Co-ordinator of Physics, UDS programme, CCE, FUTA. 2007 – 2011
- (vi) Ag. HOD Physics Department, August 1st 2011-July 31st 2012.
- (vii) Member of University Vice Chancellor Selection Committee 2017
- (viii) Chairman SOS SPAC 2016-Sept. 2017
- (ix) HOD Physics Department Aug 2018 till Date
- (x) Chairman University Examination Misconduct Committee 2018 till date

(b)Outside the University:

- (i) Secretary of ASUU – FUTA Branch 2002 - 2006
- (ii) Chairman of ASUU CDHR 2002 - 2006
- (iii) Member of CDHR (*National*)
- (iv) Pastor Holiness Bible Church, 2001 till Date
- (v) Member of Movement for the Emancipation of the Masses (MEM) 2018


24 Names and Addresses of three Referees

Prof. J. A. Adeniyi (*Retired*)
Department of Physics,
University of Ilorin,
Ilorin, Nigeria.

Prof. O.O. Jegede
Department of Physics,
Obafemi Awolowo University,
Ile Ife, Nigeria.

Prof. O.S. Ajayi
Physics Department,
The Federal University of Technology,
Akure, Nigeria.

Remember prayer
tonight 1 hr 8-10

Signature-----

Date: 19 – 02 – 21