



## **CURRICULUM VITAE AKINYEMI MARVEL LOLA (PhD)**

1. **SURNAME:** AKINYEMI , Marvel Lola
2. **DATE OF BIRTH:** 25<sup>th</sup> June, 1958
3. **PLACE OF BIRTH:** Ibadan
4. **LOCAL GOVT. AREA** Ibadan North
5. **STATE OF ORIGIN** Oyo State
6. **NATIONALITY:** Nigerian
7. **CONTACT ADDRESS:** Department of Physics  
College of Science and Technology,  
Covenant University, Ota PMB 1023  
Ogun State Nigeria
8. **MOBILE LINE:** +234 8033645413 or +234 7056863935
9. **E-MAIL ADDRESS:** [marvel.akinyemi@covenantuniversity.edu.ng](mailto:marvel.akinyemi@covenantuniversity.edu.ng)

### **Teaching Experience @ Covenant University with Dates**

<b>Place</b>	<b>Position</b>	<b>Date</b>
Physics Department, Covenant University, Ota.	Professor	2016- to date
Physics Department, Covenant University, Ota.	Associate Prof.	2013- 2016
Physics Department, Covenant University, Ota.	Former Acting Head of Dept.	2010 - 2013
Physics Department, Covenant University, Ota.	Senior Lecturer	2008-2013
Physics Department, Covenant University, Ota.	Lecturer I	2005-2008

## **LIST OF JOURNAL PUBLICATIONS**

1. Emetere M. E., **Akinyemi M. L.** and Ojewunmi M. (2018). Systemic Study of Aerosol Loading and Retention over Praia-Cape Verde: Satellite and Ground Observation Analysis. *Pol. J. Environ. Stud.* Vol. 27, No. 1 (2018), 71-78, DOI: 10.15244/pjoes/70173
2. Ndubuisi A. O., Imolorhe E., and **Akinyemi M. L.** (2018). Investigating the effect of solar trackers on solar energy harnessing in the Tropics. *IOP Conf. Series: Earth and Environmental Science* **173** (2018) 012044 doi :10.1088/1755-1315/173/1/012044
3. Ogunrinola I. E., **Akinyemi M. L.**, Boyo H. O., Maxwell O., Akinpelu A., Arijaje T. E. (2018). Evolvment of Thermal Energy Storage System. *IOP Conf. Series: Earth and Environmental Science* **173** (2018) 012042 doi :10.1088/1755-1315/173/1/012042
4. Emetere M. E. and **Akinyemi M. L.** (2017). Atmospheric Dynamics of Air Pollution Dispersion and Sustainable Environment in Jos-Nigeria *Journal of Urban and Environmental Engineering*, Vol. 11, Núm. 1, 2017, pp. 51-57
5. Emetere M. E. and **Akinyemi M. L.** (2017). Documentation of atmospheric constants over Niamey, Niger: a theoretical aid for measuring instruments. *Meteorological Applications* Volume 24, Issue 2, pp. 260–267, (Royal Meteorological Society).
6. Kesinro O. R., **Akinyemi M. L.** and Boyo A. O. (2017). Advances in Perovskite-Based Solar Cells. *Journal of Informatics and Mathematical Sciences*, Vol. 9, No. 2, pp. 485–491, 2017
7. Emetere M. E. and **Akinyemi M. L.** (2017). A short review on the effects of aerosols on visibility impairment. *IOP Conf. Series: Journal of Physics: Conf. Series* 852 (2017) 012006 doi :10.1088/1742-6596/852/1/012006
8. Emetere M. E. and **Akinyemi M. L.** (2017). A Review on the effect and Defects of Electromagnetic Field to Human. *Research Journal of Medical Sciences* 11 (1):19-22, ISSN: 1815-9346. Medwell Journals, 2017.
9. Egah D.O., Njoku E.J., **Akinyemi M.L.** and Owoeye T.F. (2017)Assessing the Combination of *Jatropha Curcas* Linnaeus and *Cassia Fistula* Oil Extracts as Bio-Fuel Source at Various Percentages *Journal of Informatics and Mathematical Sciences*. Vol. 9, No. 2, pp. 317–329, 2017
10. Emetere M. E. and **Akinyemi M. L.** (2017) Atmospheric Dynamics of Air Pollution Dispersion and Sustainable Environment in Jos-Nigeria. *Journal of Urban and Environmental Engineering*, Vol. 11, núm. 1, 2017, pp. 51-57, Universidade Federal da Paraíba, Brasil.

11. **Akinyemi M. L.**, Emeterere M. E. and Usikalu M. R. (2016) Virtual Assessment of Air Pollution Dispersion from Anthropogenic Sudden Explosion. *American Journal of Environmental Sciences* 2016, 12 (2): 94.101  
DOI:10.3844/ajessp.2016.94.101
12. **Akinyemi M. L.**, Emeterere M. E. and Akinwumi S. A. (2016) Dynamics of Wind Strength and Wind Direction on Air Pollution Dispersion. *Asian Journal of Applied Sciences (ISSN: 2321 – 0893) Volume 04 – Issue 02, April 2016*
13. Emeterere M. E., **Akinyemi M. L.** and Akin-Ojo O. (2016). A novel technique for estimating aerosol optical thickness trends using meteorological parameters. *AIP Conference Proceedings* 1705, 020037 (2016); doi: 10.1063/1.4940285
14. Emeterere M. E., **Akinyemi M. L.** and Akin-Ojo O (2015). Parametric retrieval model for estimating aerosol size distribution via AERONET, LAGOS station. *Environmental Pollution* 201 (2015) 381 -390
15. **Akinyemi M. L.**, Boyo A. O., Emeterere M. E., Usikalu M. R. and Olawole F. O. (2014). Lightning a Fundamental of Atmospheric Electricity, *IERI Procedia* 9 ( 2014 ) 47 – 52
16. Emeterere M.E., **Akinyemi M.L.**, Uno U.E., Boyo A. O. (2014). Lightning Threat Forecast Simulation Using the Schrodinger-Electrostatic Algorithm, *IERI Procedia* 9 ( 2014 ) 53 – 58
17. Emeterere M. E. and **Akinyemi M. L.** (2015) Weather Effect on Photovoltaic Module Adaptation in Coastal Areas, *International Journal of Renewable Energy Research Vol. 5 (3) 821 - 825*
18. **Akinyemi M. L.**, Emeterere M. E. and Longe T. O (2015). Analysis of Noise Pollution in Selected Areas of Ota, Nigeria. *International Journal of Scientific and Engineering Research, Vol. 6 ( 5) 1748 -1750*
19. Abodunrin T. J., **Akinyemi M. L.**, Boyo A. O. and Olugbuyiro J. A. (2015). Photo Degradation in Dye-Sensitized Solar Cells. *Mechanics, Materials Science and Engineering, (2015), ISSN 2412 – 5954*
20. Emeterere M. E., **Akinyemi M. L.** and Akin-Ojo O. (2015) Aerosol Optical Depth Trends over Different Regions of Nigeria: Thirteen years Analysis. *Modern Applied Science, Vol. 9 (9) 267 -279*
21. Emeterere M.E., Uno U.E., **Akinyemi M.L.** (2015). Modeling Ground Temperature Profile for Future Environmental Investigations *Advance Studies in Theoretical Physics Vol. 9, 2015, no. 10, 449 - 459*
22. **Akinyemi M. L.** and Usikalu M. R. (2013). Investigation of carbon monoxide concentration from anthropogenic sources in Lagos, Nigeria, *International Journal of Physical Sciences Vol. 8(21), pp. 1128- 1132, 09 June, 2013, DOI: 10.5897/IJPS12.661*

23. Emeterere E. M. and **Akinyemi M. L.** (2013). Modeling of Generic Air Pollution Analysis From Cement Factory *Analele Universităţii din Oradea–Seria Geografie, Year XXIII, no. 1/2013 (June) pp181-189, ISSN 1454-2749*
24. Usikalu M. R., Obembe O. O., **Akinyemi M. L.** and Zhu J (2013). Short-duration exposure to 2.45 GHz microwave radiation induces DNA damage in Sprague Dawley Rat’s Reproductive Systems. *African Journal of Biotechnology, 12(2):115-122.*
25. **Akinyemi M. L.** (2012) Wind Convolution and Ozone Distribution over Nigeria *Archives of Physics Research, Vol.3 (2):138-145*
26. **Akinyemi M. L.** (2012) Diminishing Atmospheric Carbon Monoxide fluxes as a Forecast of the New Planting Season in West Africa. *Am. J. Sci. Ind. Res., Vol. 3(4): 198-202*
27. Usikalu M.R and **Akinyemi M.L** (2012) Analysis of Radiation Dose around Some Base Stations in Ota and Lagos Environ. *International Journal of Basic & Applied Sciences IJBAS-IJENS Vol. 12 (5), pp. 7-12*
28. **Akinyemi M. L.,** Kayode J. S. and Usikalu M. R. (2011). Investigation of extremely low frequency (ELF) hot spot in the College of Science and Technology, Covenant University, Ota. *Turkey Journal of Physics Vol. 35, pp. 359-362.*
29. **Akinyemi M. L.** (2011). Comparative Analysis of Total Ozone Data from Satellite EPTOMS and Ground Based Dobson Instrument at Lagos-Nigeria. *Jour. of Innovative Res. of Engineering and Technology Vol. 2(3), pp. 162-172*
30. **Akinyemi M. L.** (2011) Disparity in Tropospheric and Total Ozone Variabilities over the Tropics. *International Journal of Physical Science Vol. 3(3), pp. 27-33*
31. Uhuegbu C.C. and **Akinyemi M. L.** (2010) Characterization of Spectral Selectivity of Copper Silver Sulphide Ternary Thin Film. *Global Journal of Engineering and Technology Vol. 3(4), pp. 671-675*
32. **Akinyemi M. L.** and T. V. Omotosho (2010). Signature of Atmospheric Dynamics on Surface Ozone Variability in Nigeria. *Canadian Journal of Pure and Applied Science Vol. 4(3), pp. 1289-1292*
33. **Akinyemi M. L.** and Usikalu M. R. (2010). Prudent Avoidance in Exposure to ELF Fields. *Scientific Research and Essays, Vol. 5 (15), pp. 2295-2298*
34. **Akinyemi M. L.** (2009). Total Ozone as a Stratospheric Indicator of Climate Variability over West Africa. *Inter. Jour. of Phy. Sciences Vol.5 (5), pp447-451.*
35. **Akinyemi M. L.** and C. C. Uhuegbu (2009). Interconnectivity of Weather System and ozone Concentration over West Africa. *Journal of Science and Technology Vol.29 (3), pp52-59.*
36. **Akinyemi M. L.** (2008). Dependence of UV-B Radiation on Ozone Concentration and Solar Zenith Angle at Three African Stations. *Nigeria Journal of Physics, 20(2), 319-324.*

37. **Akinyemi M. L.** (2008). Application of Fast Fourier Transform to Ozone data at Lagos Nigeria. *Aus. Jour. of Basic and Applied Sciences* 2 (4): 1129-1136
38. Usikalu M. R. and **M. L. Akinyemi** (2007). Monitoring of Radio Frequency Radiation from Selected Mobile Phones. *Journal of Applied Science Research* 3(12): 101 1704
39. **Akinyemi M. L.** (2007). The Influence of Some Atmospheric Phenomena on Total Ozone Concentration over the Tropics. *Aus. Jour. of Basic and Applied Sciences* 1 (4) 497 – 505.
40. **Akinyemi M. L.** and E.O. Oladiran (2007). Temporal and Spatial Variability of Ozone Concentration over Four African Stations. *ANSI Journal of Applied Sciences* 7 (6): 913-917.
41. **Akinyemi, M. L.** and E.O., Oladiran (2004). Impact of Human Activities on Regional and Global Weather and Climate Change – A Review. *J. Sci. Engr. and Tech. Vol. 13 (1): Pp 6524 - 6536*
42. **Akinyemi, M. L.** and E.O., Oladiran (2003). Stratospheric Ozone Trends over the Tropics. *Asset International Journal, Vol. 2 (2): Pp 63 - 72*
43. **Akinyemi, M. L.** (2002). Impact of Global Climate Change on Future Generation. *Int. Jour. of Children in Science and Technology, Vol. 1 (1), Pp 106 – 109.*

### **PUBLIC LECTURE PRESENTED**

**Akinyemi M. L.** (2012) *The Preservation of the Ozone Layer: Protecting our Atmosphere for Generations to come.*

Public Lecture delivered at the Nigerian Meteorological Research and Training Institute, Lagos, Nigeria, on the International Day for the Preservation of the Ozone Layer (18<sup>th</sup> September 2012) to mark the 25<sup>th</sup> anniversary of the Montreal Protocol.

### **CONFERENCE PAPERS**

1. **Akinyemi M. L.** (2018) Investigating the Interlink of Energy and Meteorology for Sustainable Development in Africa. *Plenary presentation, Int. Conf. on Sci. and Sust. Dev.* (May 2018)
2. Ogunrinola I. E., **Akinyemi M. L.**, Boyo H. O., Maxwell O., Akinpelu A., Arijaje T. E. (ICSSD 2018). Evolvement of Thermal Energy Storage System. IOP Conf. Series: Earth and Environmental Science **173** (2018) 012042 doi :10.1088/1755-1315/173/1/012042
3. Ndubuisi A. O., Imolorhe E., and **Akinyemi M. L.** (ICSSD 2018). Investigating the effect of solar trackers on solar energy harnessing in the Tropics. IOP Conf. Series: Earth and Environmental Science **173** (2018) 012044 doi :10.1088/1755-1315/173/1/012044

4. Egah D. O., Njoku E.J., **Akinyemi M.L.**, and Owoeye T.F. (ICSSD 2017). Assessing the Combination of *Jatropha Curcas* Linnaeus and *Cassia Fistula* Oil Extracts as Bio-Fuel Source at Various Percentages *Journal of Informatics and Mathematical Sciences Vol. 9, No. 2, pp. 317–329, 201*
5. Kesinro O.R., **Akinyemi M.L.** and Boyo A.O. (ICSSD 2017). Advances in Perovskite-Based Solar Cells *Journal of Informatics and Mathematical Sciences Vol. 9, No. 2, pp. 485–491,*
6. Emetere M. E. and **Akinyemi M. L.** (2017). A short review on the effects of aerosols on visibility impairment. IOP Conf. Series: Journal of Physics: Conf. Series 852 (2017) 012006 doi :10.1088/1742-6596/852/1/012006
7. Emetere M. E. and **Akinyemi M. L.** (2016). Prospects of solar energy in the coastal areas of Nigeria. AIP Conference Proceedings 1705, 020035 (2016); doi: 10.1063/1.4940283
8. **Akinyemi M. L.**, Emetere M. E. and Omotoso, T. V. (2015). Atmospheric Dynamics of Air Pollution Dispersion and Sustainable Environment in Nigeria. *Nigerian Institute of Physics 38<sup>th</sup> Annual Conference (October 5-9, 2015). Olabisi Onabanjo University, Ago-Iwoye, Nigeria*
9. **Akinyemi M. L.**, Emetere M. E. and Akinwumi, O. (2015). Variability of Wind Strength and Direction on Air Pollution Dispersion and Sustainable Environment in Nigeria. *Nigerian Institute of Physics 38<sup>th</sup> Annual Conference (October 5-9, 2015). Olabisi Onabanjo University, Ago-Iwoye, Nigeria.*
10. **Akinyemi M. L.**, Boyo A. O., Emetere M. E., Usikalu M. R. and Olawole F. O. (2014). Lightning a Fundamental of Atmospheric Electricity. *ESSE 2014 International Conference July 2014, Los Angelis, USA*
11. Emetere M.E., **Akinyemi M.L.**, Uno U.E., Boyo A. O. (2014). Lightning Threat Forecast Simulation Using the Schrodinger-Electrostatic Algorithm. *ESSE 2014 International Conference July 2014, Los Angelis, USA*
12. **Akinyemi M. L** (2013) Seasonal Urban Air Pollutants Concentration Splotches in West Africa as revealed by Satellites AIRS and MOPPIT. *Nigerian Institute of Physics 3<sup>5</sup><sup>th</sup> Annual Conference (March 25-30, 2013)*
13. **Akinyemi M. L.** (2012) Monitoring of Atmospheric Carbon Monoxide fluxes in predicting the Commencement of Planting Season in West Africa. Presented at the

2012 ASABE Annual International Meeting July 29 – August 3, 2012, Hilton Anatole, Dallas, Texas, USA.

14. **Akinyemi M. L.** and Omotosho T. V. (2011). Distribution of Surface Ozone concentration and winds variation over Nigeria. *World Climate Research Program (WCRP), Open Science Conference, October 23-28, 2011, Denver, Colorado USA.*
15. **Akinyemi M. L.**, Kayode J. S. and Usikalu M. R. (2010) Investigation of Extremely Low Frequency (ELF) Hot spots in the College of Science and Technology, Covenant University, Ota, Nigeria. *National Annual Conference of the Nigerian Union of Radio Science*
16. **Akinyemi M. L.** (2010). Atmospheric Dynamics and Surface Ozone Variability in Nigeria. *Nigerian Institute of Physics 33<sup>rd</sup> Annual Conference (November 09-13, 2010)*
17. **Akinyemi M. L.** (2009). Mitigation of Tropospheric Ozone by Embracing Renewable Energy Sources. *International Conference/Workshop on Renewable Energy and Climate Mitigation (July 13-17, 2009).*
18. **Akinyemi M. L.** (2008) Interconnectivity of Weather System and ozone Concentration over West Africa. *First International Academy of Astronautic (IAA) African Regional Conference, (December 3 – 5, 2008)*
19. **Akinyemi M. L.** (2007). The Influence of Some Atmospheric Phenomena on Total Ozone Concentration over the Tropics. *Nigerian Institute of Physics Annual Conference. (August 15 -18, 2007).*
20. **Akinyemi M. L.** (2007). Distribution of Tropical Stratospheric Ozone. *Royal Meteorological Society Conference 2007 (Edinburg, 3-6 September 2007).*
21. **Akinyemi M. L.**, E.O. Oladiran and E.B. Babatunde (2006). Application of Fast Fourier Transform to Ozone Data at Lagos, Nigeria. *Proceeding of International Conference on New trends in the Mathematical and Computer Sciences with Application to Real World Problems pp 141 - 159.*
22. **Akinyemi M. L.** (2002). Enhancement of Meteorological Studies through Satellite Monitoring. *Proceeding of Nigeria Meteorological Society. 5pp.*

## **PARTICIPATION IN ACADEMIC JOURNAL REVIEW EXERCISES**

- British Journal of Applied Science and Technology

- Journal of Global Ecology and Environment
- Journal of Scientific Research and Reports
- Science Journal of Pure and Applied Chemistry
- Canadian Research and Development Center of Science and Cultures, Canada
- Research Journal of Earth and Planetary Sciences, Botswana
- International Journal of Physical Sciences, Kenya
- Journal of Development and Agricultural Economics (JDAE), Kenya

### **CURRENT RESEARCH**

- Atmospheric Aerosol, aerosol loading and retention
- Continuous Standard Air Quality Monitoring and Assessment in Canaanland, Ota and Environ (Proposal for grant submitted to CUCRID)
- Investigation of Incessant Visibility Impairment Over Most Part of Nigeria (proposal for seed grant submitted to CUCRID)
- Modeling Varying Climatic Conditions and Land Surface Recovery in Africa
- Virtual Assessment of Air Pollution Dispersion from Anthropogenic Sudden Explosion
- Temperature Variation and Solar Photovoltaic Energy Efficiency over the Six Geopolitical Zones in Nigeria
- Urban Air Pollutants Concentration in West Africa as revealed by Satellites
- Atmospheric Carbon Monoxide fluxes Monitoring in predicting the Commencement of Planting Season in West Africa

### **PREVIOUS RESEARCH ACTIVITIES**

- ✚ Atmospheric Ozone Variation
- ✚ Ozone Concentration and UV-B Radiation
- ✚ Impact of Ozone Variation On Life-Forms
- ✚ Computer Application to Ozone Study
- ✚ Impact of Global Climate Change on Future Generation
- ✚ Atmospheric Pollution from Anthropogenic Activities
- ✚ Simulation and Mathematical Modeling in Atmospheric Physics
- ✚ Measurement of extremely low frequency (ELF) electric and magnetic fields around the College of Science and Technology Building, Covenant University Ota



- ✚ Monitoring of background carbon monoxide variation

### **TEACHING AREAS IN POST GRADUATE LEVEL**

1. Quantum and Statistical Physics (PHY812, 3units)
2. Solar Energy Physics (PHY 814)
3. Energy Conversion and Storage (PHY825, 3units)
4. Hydrometeorology PHY 924
5. Tropical Meteorology PHY 925
6. Advanced Atmospheric Dynamics/Air Quality Modelling PHY 926

### **POSTGRADUATE SUPERVISION/ CO-SUPERVISION/ ASSESSOR**

Presently I am supervising/co-supervising three PhD students and have graduated three PhD students in the past two years, namely Emetere Moses, Adewoyin Olusegun and Joel Emmanuel Sunday

- Emetere Moses's PhD thesis entitled "**Numerical Modelling of West Africa Regional Aerosol Dispersion**" (December 2016).
  - Adewoyin Olusegun's PhD thesis entitled "**Evaluation of Geophysical and Geotechnical Parameters of Reclaimed Land for Construction Purposes: A Case Study of Badore - Ajah, Lagos State, Nigeria**" (June 2016).
  - Joel Emmanuel thesis entitled "**Assessment of Groundwater Potential in Ado-Odo/Ota Local Government Area Using Integration of Geophysical Techniques**" (June 2018)
  - I have served as PhD external examiner at the Physics Department, University of Ibadan, for a PhD thesis entitled "**Modelling Diurnal Pattern of Turbulent Heat Fluxes from Routine Meteorological Data Using Low Wind Speed Excess Resistance Parameter in Southwestern Nigeria**" by Akinnubi, Rufus (October 2015).
  - I have served as MPhil external examiner at the Physics Department, University of Ibadan, for a MPhil thesis entitled "**Development of Statistical Downscaling Models for General Circulation Models Precipitation Output Over West Africa**" by Omotoye Adegoke Oluwaseyi (October 2017).
  - I have served as internal assessor for more than three PhD Theses:
1. PhD thesis entitled "**Implication of Future Carbon Dioxide Injection on Niger Delta Reservoir Rocks and Fluids**" by Adebayo, Thomas Ayotunde (CUGP070199).

2. PhD thesis entitled “**Thermodynamic Performance Analysis of Selected Gas Turbine Power Plants in Nigeria**” submitted by OYEDEPO, Sunday Olayinka (CUGP/05/0161)
3. PhD thesis entitled “**Profiling the Environmental Sustainability of Residential Building in Lagos, Nigeria using Life Cycle Assessment**” submitted by EZEMA, Isidore Chukwunweike. (CUGP/06/0203)

I have supervised **many students** at the undergraduate level

Prof. Akinyemi M. L.

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Signature/Date