

# AYOOLA ADEOLU OLUSOLA

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## CAREER OBJECTIVES:

To be a world-class teacher and researcher;

To build and impact future leaders;

To generally contribute to the advancement of science and its applications to real-life phenomena.

## PERSONAL BIODATA

Gender	Male
Place of Birth	Igangan
State of Origin	Oyo
Nationality	Nigerian

## EDUCATIONAL QUALIFICATION:

✓ <b>Doctor of Philosophy, Solid State Physics</b>	<b>In-view.</b>
University of Ibadan, Ibadan, Oyo State, Nigeria.	
✓ <b>Masters of Science, Solid State Physics (Distinction Grade)</b>	<b>2018.</b>
University of Ibadan, Ibadan, Oyo State, Nigeria.	
✓ <b>Bachelor of Science Physics (First Class Honours)</b>	<b>2015.</b>
University of Ibadan, Ibadan, Oyo State, Nigeria.	
✓ <b>West Africa Senior School Certificate Examination (WASSCE)</b>	<b>2004.</b>
Oyo State School of Science, Idere, Nigeria.	

## WORK EXPERIENCE:

✓ Department of Physics, University of Ibadan, Ibadan, Nigeria.	
<b>Job Description: Lecturer,</b>	<b>2019- Till date.</b>
✓ Department of Physics, University of Ibadan, Ibadan, Nigeria.	
<b>Job Description: Teaching assistant</b>	<b>2016-2018</b>
✓ Royal Diadem Secondary School, Alapata, Ojoo, Ibadan, Nigeria.	
<b>Job Description: Physics and Mathematics teacher</b>	<b>2015-2018.</b>
✓ Obasanjo Farms Nigeria Limited (OFN), hatchery Section, Igboora, Oyo State, Nigeria.	
<b>Job Description: Hatchery Attendant</b>	<b>2005-2010.</b>
✓ Owotutu Investment Limited, Bakery Section, Sagaun, Igboora, Oyo State, Nigeria.	

### **LEADERSHIP ROLES:**

- ✓ Examination Officer, Department of Physics, University of Ibadan, 2025 – till date.
- ✓ Chairman, Examination Results Committee, Physics Department, University of Ibadan, 2025 to date.
- ✓ Member, Research and Implementation Committee, 2024 to date.
- ✓ Secretary, Accreditation Committee, 2024.
- ✓ Member, Department of Physics, Quality Assurance, 2024 to date
- ✓ Member, Department of Physics Information Technology Committee 2024 to date
- ✓ Secretary, Academic Staff Committee, Department of Physics, University of Ibadan, Nigeria, 2023 to date.
- ✓ Secretary, Staff and Students Disciplinary Committee (SSDC), Department of Physics, University of Ibadan, Nigeria, 2023 to date.
- ✓ Member, Staff and Students Disciplinary Committee (SSDC), Department of Physics, University of Ibadan, Nigeria, 2021 to date.
- ✓ Member, Faculty of Science Wellness Committee, University of Ibadan, Nigeria, 2020 to date.
- ✓ Coordinator, Technical Unit, Champions Arising Ministry, Nigeria, 2017 to date.
- ✓ Coordinator, technical unit, C&S Church Unification University of Ibadan Campus Fellowship, 2013-2015.
- ✓ Assistant Academic Coordinator, C&S Church Unification University of Ibadan Campus Fellowship 2012.
- ✓ Group Leader, Obasanjo Farms Nigeria Limited Hatchery Section, Igboora, Oyo State, Nigeria. 2007-2010.
- ✓ Assistant Head Boy and Librarian, Igangan High School, Igangan, Ibarapa North Local Government, Oyo State, Nigeria, 2002-2003.

### **CONFERENCES AND WORKSHOPS ATTENDED:**

- ✓ Africa School on Electronic Structure Methods and Applications (ASESMA) 2025, organized by ICTP at the University of Ghana, Legon, 9-20 June 2025  
*Poster presentation: Atomistic Modeling of Metal-Ion Batteries Using Ab Initio Data.*
- ✓ International Conference on Scientific Research in Nigeria, Faculty of Science, University of Ibadan, 6 – 9 May 2025.  
*Paper read: Investigation of the Effect of Strain Engineering on the Structural, Mechanical, and Electronic Properties of CdTe via Density Functional Theory (DFT).*
- ✓ Institutionalizing University of Ibadan e-Learning, 12 February 2025.
- ✓ LOC: Mini African School for Electronic Structure Methods and Applications (Mini-ASESMA), Density Functional Theory and Automation, University of Ibadan, 05 – 09 August 2024.

- ✓ Workshop on the Implementation of the University of Ibadan E-learning Committee Policy and the Execution of the 2024 6-Week Virtual Teaching for 100L Students, April 2024.
- ✓ Introduction to R for Data Science and Data Analytics, organized by Osun R Users Group, Nigeria, 01 – 03 June 2023.
- ✓ Wentworth School of Computing and Data Science's Open House and AI Workshop for Africa, organized by Wentworth Institute of Technology, USA, 10 December 2022.
- ✓ Poster Presentation in 2022 Recent Developments in Electronic Structure (E22) organized by Columbia University, New York, 7 June 2022.
- ✓ Workshop on Electrochemical Energy and Storage: Theory, Experiments and Application organized by ICTP (online) 5th-26th May, 2022.
- ✓ Young Researchers' Workshop on Machine Learning for Materials, organized by ICTP Italy, May 9th -13th, 2022.
- ✓ Machine Learning in Electronic Structure and Molecular Dynamics, organized by East African Institute for Fundamental Research (EAIFR), Rwanda, October 2021- May 2022.
- ✓ International Workshop on Computational Physics and Materials Science: Total Energy and Force Methods organized by ICTP, Italy, 23rd-25th, 2021.
- ✓ The Book Publishing Process: An Elsevier Author Workshop, 3rd June 2020.

## SKILLS:

- ✓ Quantum ESPRESSO
- ✓ Latex
- ✓ Python (Basics)
- ✓ Basics of Machine Learning
- ✓ Experience in using the Linux operating system
- ✓ Experience in using the Microsoft operating system

## RESEARCH

- (i) Formulation of a New Exchange-Correlation Potential Functional for Better Band Gaps in Density Functional Theory (DFT) – Completed (To be published)
- (ii) Effect of Strain Engineering on the Band Gap, Fermi Energy and the Carrier Effective Mass of GaX (X= P, N, As, Sb, and Bi) – Completed (To be published)
- (iii) Doping-Induced Indirect-Direct Band Gap Transition of Silicon – completed (To be published)
- (iv) Atomistic Simulation of Metal-ion Batteries using Ab Initio Data – In progress
- (v) First Principle Investigation of Thermoelectric Properties of  $\text{Bi}_2(\text{S}_{1-x}\text{Te}_x)_3$  via Density Functional Theory (DFT) – In progress
- (vi) Investigation of Strain Engineering Effect on the electronic and Mechanical Properties of Cadmium Telluride via Density Functional Theory (DFT) – In progress

## AWARDS, SCHOLARSHIPS AND FELLOWSHIPS

- ✓ ASESANET Intra-Africa Mobility 2024: A Research visit award to the University of Ghana, sponsored by the International Centre for Theoretical Physics (ICTP), Italy, 2004.
- ✓ Best teacher of the year, Royal Diadem School, Alapata, Ojoo, Ibadan, Nigeria, 2018.
- ✓ University of Ibadan scholarship awards for master's degree programme, 2013/2014.
- ✓ Seyi Makinde Scholarships Award for Oyo State Students, 2015.
- ✓ Best Staff of the Year, Obasanjo Farms Nigeria Limited, Hatchery Section, Igbo-ora, Nigeria, 2008.

## REFERENCES:

### ➤ **Prof. Oluseyi Ezekiel AWE**

Physics Department,  
University of Ibadan, Ibadan,  
Nigeria.  
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### ➤ **Dr. Omololu AKIN-OJO**

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University of Ibadan, Ibadan,  
Nigeria.  
[oakinojo@gmail.com](mailto:oakinojo@gmail.com) +2347039531808

### ➤ **Dr. Ezekiel OYENIYI**

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University of Ibadan, Ibadan,  
Nigeria.  
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