

Lateef Olajuwon MUSTAPHA

I. PERSONAL DATA

- a. **Passport No.:** A06587108
- b. Present Position: Faculty Member
- c. Telephone Number: +2347060559403, 08185509192
- d. E-mail address: muslaty2k@gmail.com, mustaphalateef@alhikmah.edu.ng

II. Educational Institutions attended with dates:

- University of Ibadan, Ibadan, Nigeria (Oct. 2016)
Al-Hikmah University, Ilorin, Nigeria (Dec 2016 - Oct. 2017)
University of Ibadan, Ibadan, Nigeria (January 2011 – Sept. 2012)
Olabisi Onabanjo University, Ago Iwoye, Nigeria (Oct. 2004 – Apr.2009)

III. Academic and Professional Qualifications:

- Ph.D Solid State Physics (In view)
Postgraduate Diploma in Education (PGDE)
M.Sc Physics (Ibadan)
B.Sc (Hons) Physics with Electronics

IV. RESEARCH INTEREST

Computational Material Science (DFT, GW), Atmospheric Modelling and Partial Differential Equation.

V. RESEARCH WORK COMPLETED AND IN PROGRESS

- a) Structural, electronic, vibrational and optical properties of polymorph XN (X= Sc, Y, Al, Ga). Completed.
- b) Electronic, Optical and Vibrational Properties of polymorph XN (X= Sc, Y, Al, Ga): GGA and GGA+U approach. Completed.
- c) Ab-initio study of defect complexes in GaN: Vacancies, Mn dopant and influence of Oxygen and Hydrogen impurities. Completed
- d) DFT study of the influence of Defects and Oxygen/Hydrogen Impurities on Magnetic Transformation in Fe Doped GaN. Completed.

VI. SUPERVISION OF UNDERGRADUATE STUDENTS: Selected Projects

- a) A review of Some Empirical Models for Monthly Global Solar Radiation Estimation in some Nigeria Cities. Supervised Project – Completed by Ali Zakari (2016)
- b) First Principle Study of Electronic and Mechanical Properties of Lithium Fluoride under high Pressure. Supervised Project – Completed by Amuza Azeez (2017)
- c) Mechanical Properties of Cubic APbX₃ (A = Li, Na, K, Rb, and Cs; X = F and I) Perovskites Material using Density Functional Theory Approach. Supervised Project – Completed. Akinsola Abdulkadir (2018)

VII. PUBLICATION

A. PUBLISHED JOURNAL ARTICLES (SELECTED) :

- a) Kolebaje O.T & **Mustapha L.O** (2012): On the performance of some predictive models for global solar radiation estimate in tropical stations: Port Harcourt and Lokoja. African Review of Physics, Vol. 7(15), 145-163.
- b) O Mustapha Lateef, E Oyewande Oluwole, T Kolebaje Olusola (2013): On the electronic properties of some metals using density-functional theory. International Journal of Physical Research, 1 (1) (2013) 7-11
- c) Kolebaje O.T, Mustapha L.O & Obende M. (2012): Semi-Analytic Solution of the Nonlinear Kawahara Equation. Journal of Nigeria Association of Mathematical Physics, Vol. 23 (1), pp 17 – 22.
- d) OT Kolebaje, LO Mustapha (2013): Semi-Analytic Solution of the Nonlinear Sharma-Tasso-Olver Equation. International Journal of Modern Applied Physics 1 (No. 1), 48 - 61
- e) Bello F.A.J and Mustapha L.O (2015): Radiative Effect of Dissipation Function in the Development of Temperature Profiles in a Pipe with Isothermal Convection. Al-Hikmah Journal of Pure & Applied Sciences Vol. 2, No. 1.
- f) Yisau A. Odusote and **Lateef O. Mustapha** (2017): Temperature Dependence of the Structural Properties of Liquid Cu, Au and Fe Metals via RMC Method, American Journal of Condensed Matter Physics, Vol. 7 No. 2, pp. 33-40.

g) Olusola Kolebaje, Ebenezer Bonyah, and **Mustapha Lateef** (2019): The First Integral Method for Two Fractional Non-linear Biological Models. Discrete And Continuous Dynamical Systems Series S Volume 12(3), pg 487-502.

h) LO Mustapha, AA Oni, IW Fawole, AO Zakari, GA Lamidi (2019): Performance Of Some Parametric Models For Global Solar Radiation Estimation In Nigeria Annals. Computer Science Series 17 (2), pg 351-362.

B. MAJOR CONFERENCES ATTENDED:

a) **Mustapha, L.O**, Oyewande, E.O, Kolebaje, O.T.:On the Electronic Properties of Selected Metals using Density Functional Theory. Paper presented at the 23rd Colloquium and Congress of Nigerian Association Mathematical Physics, 2012 held at Redeemer University, Nigeria.

b) 23rd Colloquium and Congress of the Nigerian Association of Mathematical Physics (NAMP). Redeemer's University, Redemption City, Ogun State, Nigeria. November 2012.

c) 24th Colloquium and Congress of the Nigerian Association of Mathematical Physics (NAMP). University of Benin, Benin City. February 2014.

d) 38th Nigerian Institute of Physics, Oduduwa University Ipetumodu, Osun State, 2015.

e) **Mustapha L O**, Oni, A.A, Fawole, I.W, Zakari, A., Lamidi, G. A review of Some Empirical Models for Monthly Global Solar Radiation Estimation in some Nigeria Cities, presented at the 40th Nigeria Institute of Physics, Federal University of Technology, Minna 2017.

f) 40th Nigeria Institute of Physics, Federal University of Technology, Minna 2017.

g) Advanced School on Applications of First-Principles and molecular Simulations in Physical Sciences. Jointly Organized by the Department of Physics, Federal University of Agriculture, Abeokuta and the Faculty of Physics, University of Duisburg-Essen from 5th -16th February, 2018.

h) Workshop On Computational, Theoretical Studies and Molecular Dynamics Simulation And Computer Cluster. A Two - Week Training On Computational, Theoretical Studies And Molecular Dynamics Simulation and Computer Cluster Organized By Postgraduate School, the University Of Ibadan And International Centre For Theoretical Physics (Ictp, Italy).29 April – 10 May 2019.

i) Workshop On Collaborative Academic Resuscitation And Transformation (UI-CARTA) Project In Science And Technology (Sctech). A UI and MacArthur project in science and technology (ScTech) for capacity building for early career and Postgraduate Researchers in Science and Technology, May 14 -16, 2019.

VIII. CONFERENCES, SEMINARS AND WORKSHOP ATTENDED (WITH DATES):

a) 23rd Colloquium and Congress of the Nigerian Association of Mathematical Physics (NAMP). Redeemer's University, Redemption City, Ogun State, Nigeria. November 2012.

b) 24th Colloquium and Congress of the Nigerian Association of Mathematical Physics (NAMP). University of Benin, Benin City. February 2014.

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IX. RELEVANT SKILLS

Python, Quantum Espresso, Linux (lubuntu and Ubuntu), and High-Performance Cluster.