

CURRICULUM VITAE

A. GENERAL INFORMATION

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|--|---|
| 1. Name: | Asimiyu Olalekan, OLADAPO |
| 2. Date and Place of birth: | 4th June 1984/ Osogbo, Osun State |
| 3. Gender: | Male |
| 4. Nationality: | Nigerian |
| 5. State of Origin: | Osun State |
| 6. Local Government Area: | Osogbo |
| 7. Marital Status: | Married. |
| 8. Names and Ages of Children: | OLADAPO Aisha W.(8years),
OLADAPO Abdullah O.(4years),
OLADAPO Abdulrahman O.(2years),
OLADAPO Abdulsalam O (6months) |
| 9. Names and Relationship of Next
of Kin with Telephone Number: | Mrs. Fausat Labake
OLADAPO/Wife/ 08111993295 . |
| 10. Permanent Contact Address: | No. 13D, Oke-Fia Street, Osogbo, Osun
State, Nigeria. |
| 11. E-mail Address: | asimiyu.oladapo@uniosun.edu.ng |
| 12. Registration wit Research Gates: | Yes |
| 13. If Yes, Provide the Link: | https://www.researchgate.net/profile/Asimiyu-Oladapo |
| 14. If No, Why: | Not Applicable |
| 15. Registration with Google Scholar: | Yes |
| 16. If Yes, Provide the Link: | https://scholar.google.com/citations?user=posJOVEAAAAJ&hl=en |
| 17. If No, Why: | Not Applicable |
| 18. Cell Phone Number: | 08030849973 |

19. College/ Faculty/Unit:	Science, Engineering and Technology (SET), Basic and Applied Sciences, Mathematics
20. Department:	Mathematical Sciences.
21. Date and Position on First Appointment:	5 th May, 2022; Assistant Lecturer
22. Present Position and Salary:	Lecturer II (CONUASS 3 ⁴)
23. Date of Present Position; (Promotion/Regrading):	1 st October, 2023 19th March, 2024
24. Is Your Appointment Confirmed?	Yes
25. If No, why?	Not Applicable
26. Date of Confirmation of Appointment:	10 th February, 2025

B. EDUCATIONAL BACKGROUND

1. Educational Institutions Attended with Dates:

- | | |
|--|------------|
| 1. Osun State University, Osogbo, Osun State | 2019-2023 |
| 2. Ladoke Akintola University of Technology, Ogbomosho, Oyo State. | 2014- 2018 |
| 3. University of Ilorin, Ilorin, Kwara State | 2007-2011 |
| 4. St. Charles' Grammar School, Osogbo. Osun State | 1994-2000 |

2. Academic and Professional Qualifications with Dates/Issuing Authority and Class of Degree/Grade Level must be indicated:

i. Ph. D Applied Mathematics (Bio-Mathematics)
2023

ii. M Sc. Mathematics (Bio-Mathematics)
2018

iii. B Sc. Mathematics
2011

3. Other Relevant Qualifications: Nil

4. Honors, Awards and Distinctions: Nil

5. Research Fellowships with Dates: Nil

C. WORK EXPERIENCE OUTSIDE THE UNIVERSITY SYSTEM:

Osun State College of Technology, Esa-Oke, Osun State (Teaching Assistant NYSC)

2011-2012

D. WORK EXPERIENCE IN OTHER UNIVERSITIES:

Nil

E. WORK EXPERIENCE IN OSUN STATE UNIVERSITY:

Department:

- | | | |
|------|---|-------------------------|
| i. | Lecturer II: (Department of Mathematical Sciences) | 01/10/2023 – Till |
| | Date | |
| ii. | Assistant Lecturer: (Department of Mathematical Sciences) | |
| | | 05/05/2022 – 01/10/2023 |
| iii. | Mathematics Instructor: CPAS, UNIOSUN | 05/05/2014 – 01/10/2022 |

F. CO-CURRICULAR PROFESSIONAL EXPERIENCE:

Nil.

G. MEMBERSHIP OF PROFESSIONAL BODIES:

- | | |
|--|------------------|
| I. Member - National Association of Mathematical Physics (NAMP) | 2018–Till Date |
| II. Member - Nigeria Society for Mathematical Biology | 2018 - Till Date |
| III. Member - Spatial and Data Science Society of Nigeria (SDSSN) | 2025 - Till Date |
| IV. Member - Mathematics Association of Nigeria (MAN) | 2025 - Till Date |
| V. Member - Applied Malaria Modeling Network (AMMNET) | 2024 – Till Date |
| VI. Member - Measles Analytics Hub, Nigeria (MAH) | 2025 – Till Date |
| VII. Member – African Society for Industrial and Applied Mathematics
West Africa Region | 2024 – Till Date |
| VIII. Member – African Society for Biomathematics | 2024 – Till Date |

H. SERVICES:

(1) Osun State University:

- (i) Level Adviser for Mathematics Students 100 LEVEL (2022/2023)
200 LEVEL (2023/2024)
300 LEVEL (2024/2025)
400 LEVEL (2025/2026)
- (ii) Secretary, Department of Mathematical Sciences Board 2023-Till
Date
- (iii) Course Coordinator for MTH 104: 2024-Till date

2(a) Review and Assessment of Academic Journals and Candidate for Academic Positions:

- (i) Manuscript Number: UJBAS_MSCS_009_2026_PAPER_1_20
Title: Splitting, Order-p Automorphisms, and Module-Theoretic Invariants of Automorphism Groups of Finite Abelian p-Groups
- (ii) Manuscript Number: UJBAS_MSCS_006
Title: EXTENDED HYBRID BLOCK SECOND DERIVATIVE BACKWARD DIFFERENTIATION FORMULA FOR SOLVING DIFFERENTIAL-ALGEBRAIC EQUATIONS OF VARIOUS INDEXES
- (iii) Manuscript Number: UJBAS_MSCS_005
Title: Exploration of Free Convective Magneto-Nanofluid Flow over a Vertically Extending Disk Featuring Activation Energy and Nonlinear Thermal Radiation
- (iv) UJEES-26-018 titled “Mathematical Analysis of a Tuberculosis Control Model with Vaccination, Treatment, and Public Awareness via the Laplace Adomian Method “for UNIOSUN Journal of Engineering and Environmental Sciences.
- (b) External Examiner for Higher Degree: Nil

(3) Community:

- i. Osogbo Progress Union Nil

Member Education Committee

ii. National:

(i) JAMB Supervision (PROCTOR)	2022 -2024
(ii) National Youth Service	2011-2012
(iii) Marking of Examination at National Open University	2023 -2025

(4) International: Nil.

I. COURSES TAUGHT DURING THE CURRENT ACADEMIC SESSION:

S/N	COURSE CODE	COURSE TITLE	COURSEUNIT
1	MTH 101	Elementary Mathematics (Algebra and Trig.)	02
2	MTH 103	Elementary Mathematics III	02
3	MTH 105	Elementary Mathematics for Biological Sciences I	02
4	MTH 205/213	Mathematical Method I	03
5	MTH 303	Elementary Differential Equation I	03
6	MTH309	Dynamic of a Rigid Body	03
7	MTH 307	Complex Analysis	03
8	MTH 311	Discrete Mathematics	03
9	MTH 317	Applications of Mathematics to industries	03
10	MTH 401	Theory of ordinary differential equations	03
11	MTH 415	Elasticity	03
12	MTH 101	Elementary Mathematics (Algebra and Trig.)	02
13	MTH 497:	Project	02
14	MTH 613	Mathematical Probability	03
15	MTH 102	General Mathematics II	02
16	MTH 104	General Mathematics III	03
17	MTH 212:	Vector Analysis	03
18	MTH 312/342:	Mathematical Modelling	03
19	MTH 404	Theory of Partial Differential Equation	03
21	MTH 498	Project	04

J. GRADUATE STUDIES SUPERVISION: Four (4)

K. RESEARCH AND PUBLICATIONS:

(a) Research work for Degrees:

(i). **A.O Oladapo (2023)**: Optimal control analysis on mathematical model of dynamical transmission of HIV-Malaria co-infection. Ph.D. Thesis, Osun State University, Osogbo, Nigeria

(ii). **A.O Oladapo (2023)**: Mathematical Analysis of sensitive parameters on the dynamical transmission of HIV-Malaria Co-infection. Ph.D. Thesis, Osun State University, Osogbo, Nigeria

(iii). S.O Adewale **A.O Oladapo** and M.A Omoloye (2014): Mathematical and Sensitivity Analysis of the Dynamical Spread of Human Immune-Deficiency Virus (HIV) and Acquired Immune-Deficiency Syndrome (AIDS) Epidemic. MTech. Project, Ladoke Akintola University of Technology, Ogbomosho, Oyo-State, Nigeria.

Publications:

(i) Books (authored/co-authored): Nil

(ii) Books (Edited/co-edited): Nil

(iv) Monographs: Nil

(iv) Chapters in books: **04**

1. Essential Mathematics for University Students – Publisher: Uniosun Publishing Limited (2025)-(Onshore).

Contributing Chapters:

Chapter 1: Set Theory

Chapter 2: Binary Operations and the Real Number System

Chapter 3: Surds

Chapter 7: Indices and Logarithm

(v) Articles and learned journals: (18)

2. **Oladapo, A. O.**, Yunus, A. O., Omoloye, M. A., &Olayiwola, M. O. (2025). Novel approaches to malaria control and eradication using fractional-order modeling and numerical simulations. *Next Research*, 2(2), 100205. **(Published by ELSEVIER). (Offshore)**

3. Adewale Adedokun, K., Oyedunsi Olayiwola, M., Adedapo Alaje, I., Olarewaju Yunus, **A. Olalekan Oladapo**, A., & Oyeleye Kareem, K. A (2024) caputo fractional-order model of tuberculosis incorporating enlightenment and therapy using the Laplace-Adomian decomposition method. *International Journal of Modelling and Simulation*, 1–15. [https://doi.org/10.1080/02286203.2024.2315361\(2024\)](https://doi.org/10.1080/02286203.2024.2315361(2024)). **(Published by Taylor and Francis). (Offshore)**

4. Z.O Dere, **A.O Oladapo** (2024). Mathematical (SEIRB) Model Analysis For Evaluating Cholera Control Strategies In Remote Dry Season Region J. Diferensial/E. Vol.6(2)2024, 148-169 **(Published by UNIVERSITAS NUSA CENDANA, INDONESIA). (Offshore)**

5. **A.O. Oladapo**, M.O. Olayiwola, K.A. Adedokun, I.A. Alaje and J.A. Adedeji, (2023) Optimal control analysis on mathematical model of dynamical transmission of hiv-malaria co-infection Journal of Southwest Jiaotong University 58 (1) **(Published by Southwest Jiatong University). (Offshore)**

6. **A.O. Oladapo**, M.O. Olayiwola, K.A. Adedokun, A.I. Adedapo, Mathematical Analysis of Sensitive Parameters on the Dynamical Transmission of HIV-Malaria Co-infection Jambura Journal of Biomathematics (JJBM), (2023) **(Publisher by Department of Mathematics, Universitas Negeri Gorontalo, Indonesia). (Offshore)**

7. A.O. Yunus, M.O. Olayiwola, M.A. Omoloye and **A.O. Oladapo**, A fractional order model of lassa disease using the Laplace-adomian decomposition method, Healthcare Analytics, 100167 (2023) **(Published by ELSEVIER). (Offshore)**

8. Alaje, A. I., Olayiwola, M. O., Adedokun, K. A., Adedeji, J. A. and **Oladapo, A. O.** Modified homotopy perturbation method and its application to analytical solitons of fractional-order Korteweg–de Vries equation. Beni-Suef University Journal of Basic and Applied Sciences, 11(1), 1-17. (2022). **(Publisher by Springer). (Offshore)**

9. A.I. Alaje, M. O. Olayiwola, K. A. Adedokun, J. A. Adedeji, **A. O. Oladapo**. The modified homotopy perturbation method and its application to the dynamics of price evolution in Caputo-fractional order Black Scholes model. Beni-Suef University Journal of Basic and Applied Sciences 12 (1), 93 **(Publisher by Springer). (Offshore)**

10. Abioye, A. I., Peter, O. J., Ogunseye, H. A., Oguntolu, F. A., Ayoola, T. A., & **Oladapo, A. O.**(2023) A fractional-order mathematical model for malaria and COVID-19 co-infection dynamics.*Healthcare Analytics*, 4, 100210(**Publisher by Elsevier**).
(Offshore)
11. Peter, O. J., Panigoro, H. S., Ibrahim, M. A., Otunuga, O. M., Ayoola, T. A. & **Oladapo, A. O.** Analysis and dynamics of measles with control strategies: A mathematical modeling approach. *International Journal of Dynamics and Control*, 11(5), 2538-2552. (2023). (**Publisher by Springer**). (Offshore)
12. Kareem, K. O., Olayiwola, M., **Oladapo, A. O.**, Akeem, Y., Adedokun, K., & Alaje, I. (2023) On The solution of volterra integro-differential equations using a modified adomian decomposition method. *Jambura Journal of Mathematics*, 5(2), 265-277. (**Published by Department of Mathematics, Universitas Negeri Gorontalo, Indonesia**).
(Offshore)
13. Bashiru, K., Aduroja, O. O., Olaosebikan, M. L., **Oladapo, A. O.**, Olatunji, A. F., Dhikrullah, A. A., & Kolawole, M. K. (2023). Analysis and simulation of HIV/AIDS transmission dynamics and control strategies. *Fountain Journal of Natural and Applied Sciences*, 12(1). (**Published by Fountain University**). (Onshore)
14. Kolawole, M. K., Odeyemi, K. A., Alaje, A. I., **Oladapo, A. O.**, & Bashiru, K. A. Dynamical analysis and control strategies for capturing the spread of covid-19. *Tanzania Journal of Science*, 48(3), 680-690.(2022). (**Published by College of Natural and Applied Sciences, University of Dar es Salam, Tanzania**). (Offshore)
15. Ojuronbe, T. A., Aduroja, O. O., Olaosebikan, M. L., **Oladapo, A. O.**, Olatunji, A. F., Dhikrullah, A. A., & Bashiru, K. (2023). A Behavioral Analysis of SEIR Epidemic Model with Control Strategies. *Adeleke University Journal of Engineering and Technology*, 6(1), 46-55. (**Published by Adeleke University Journal of Engineering and Technology**). (Onshore)
16. Ishola, C. Y., Raji, M. T., Olaosebikan, M. L., Etuk, M. O., **Oladapo, A. O.**, & Victor, A. (2022) Reconstructed variational iteration algorithm via third-kind shifted Chebyshev polynomials for the numerical solution of seventh-order boundary value problems. *Mathematics and Computational Sciences*, 3(4), 55-61. (**Published by Qom University of Technology, Iran**). (Offshore)
17. Yunus, A. O., Olayiwola, M. O., Omoloye, M. A., & **Oladapo, A. O.** (2023). A fractional order model of lassa disease using the Laplace-adomian decomposition method. *Healthcare Analytics*, 100167. (**Published by Elsevier**). (Offshore)

18. Olaosebikan, M. L., Kolawole, M. K., Alaje, A. I., **Oladapo, A. O.**, & Adediran, I. A. (2025). Mathematical modelling of hepatitis B virus dynamics evaluating the role of vaccination and metabolic factors in disease progression. *Quality & Quantity*, 1-39. **(Published by Springer). (Offshore)**
19. Olaosebikan, M. L., **Oladapo, A. O.**, & Ogunniran, M. O. (2026). Analysing Cholera-Measles Epidemics of a Fractional-Order Model with Preventive Strategies Using Laplace Adomian Decomposition Method. *Jurnal Diferensial*, 8(1), 33-55. **(Published by UNIVERSITAS NUSA CENDANA, INDONESIA). (Offshore)**

vii. Referred Conference Proceedings

viii. Un-referred Conference Proceedings Nil.

ix. Books Reviews Nil.

x. Technical Reports Nil.

xi. Patents and inventions Nil

L. Current Research Activities:

1. Analysis of a fractional order mathematical model of whooping cough with aging-related immune decline using Laplace Adomian decomposition method.
2. A fractional-order HIV transmission model with treatment effects using the Caputo derivative and laplace-adomian decomposition method.
3. Insight into Mathematical Modeling of HIV and Malaria Co-infections using Laplace.
4. Mathematical Assessment of the impact of treatment and vaccination on cholera transmission Dynamics.

M. CONFERENCES AND WORKSHOPS ATTENDED WITH DATES

- (i). Grant to attend and present paper titled “*Modelling the Impact of Vaccination on Malaria Transmission in Nigeria*” At The 2025 VIMC Annual Meeting Scheduled to hold In Accra, Ghana, From June 11th to 14th, 2025. Sponsored by *Imperial College London School of Public Health, London*

- (ii) The TETFund –Sponsored Capacity Building Programme on Career Service for Career Coaches and Mentors at Osun State University, Oshogbo, Osun State, Wednesday, 20th - Friday, 22nd August 2025.
- (iii) The 5th International Symposium on Recent Trends in Bio-Mathematics with Applications, 2025 held at Department of Mathematics UMT|SSC School of Science.
- (v) Spatial Data Science Workshop on using Python for Geographical Data Science, ArcGIS Pro Python for Geostatistical and Spatial Statistics Analysis and Visualization, Department of Statistics, Osun State University, Osogbo, Wednesday 16th – Friday 18th July 2025.
- (vi) The 41st Annual Conference of Nigeria Mathematical Society, University of Ibadan, Nigeria, Monday 6th- Friday 10th May, 2024.
- (vii) 32st Colloquium and Congress of the Nigerian Association of Mathematical Physics (NAMP) at University of Benin, Edo State, Nigeria. 31st January – 3rd February, 2023.
- (viii) Paper Presented: Optimal control analysis on mathematical model of dynamical transmission of HIV-Malaria co-infections

Summary of Publications

Status	Number	Percentage (%)
Offshore	16	84.21%
Onshore	03	15.79%
Total	19	100

N. EXTRAL CURRICULAR ACTIVITIES:

Reading, football and Travelling

O. ANY OTHER RELEVANT INFORMATION:

Mathematical Modeling, Computational Biology, Data Analysis, Modeling and Simulation

P. SUMMARY OF CONTRIBUTION TO KNOWLEDGE:

I specialize in Mathematical Modeling, Computational Biology, and Data Analysis, with particular emphasis on the application of mathematical methods to the study of transmission

dynamics of emerging and re-emerging viral diseases of public health importance. My research focuses on the development, evaluation, parameterization, and simulation of innovative mathematical models aimed at understanding and controlling infectious disease spread. Through these contributions, I have generated valuable and original research findings that have advanced knowledge in the field.

The outcomes of my research have been published in reputable peer-reviewed journals and have received citations from mathematicians and researchers across related disciplines.

Asimiyu Olalekan, **OLADAPO**

Name

Signature and Date