

## CURRICULUM VITAE

- I NAME:** Gbenga Matthew **AYININUOLA**  
**DATE OF BIRTH:** 3 July, 1971  
**DEPARTMENT:** Civil Engineering  
**FACULTY:** Technology  
**UNIVERSITY:** University of Ibadan  
**E-Mail:** ayigbenga@gmail.com  
gm.ayininuola@ui.edu.ng  
**TELEPHONE:** +2348056131662 and +2347062382942  
**MARITAL STATUS:** Married with two children (15 and 18 years old)  
**PRESENT ADDRESS:** Department of Civil Engineering,  
University of Ibadan, Ibadan, Nigeria
- II FIRST ACADEMIC APPOINTMENT:** Lecturer II (2 January 2001)  
**PRESENT POST (WITH DATE):** **Professor** (01 October 2018)
- III UNIVERSITY EDUCATION (WITH DATES)**
- |       |                                       |               |
|-------|---------------------------------------|---------------|
| (i)   | University of Ibadan, Ibadan, Nigeria | (2002 - 2010) |
| (ii)  | University of Ibadan, Ibadan, Nigeria | (1998 - 2000) |
| (iii) | University of Ibadan, Ibadan, Nigeria | (1991 - 1997) |
- IV ACADEMIC QUALIFICATIONS (WITH DATES AND GRANTING BODIES)**
- |       |   |      |
|-------|---|------|
| (i)   | Ph.D. (Civil Engineering) – University of Ibadan, Ibadan, Nigeria | 2010 |
| (ii)  | M.Sc (Civil Engineering) – University of Ibadan, Ibadan, Nigeria  | 2000 |
| (iii) | B.Sc. (Civil Engineering) – University of Ibadan, Ibadan, Nigeria | 1997 |
- V PROFESSIONAL QUALIFICATIONS AND DIPLOMA (WITH DATES)**
- |    |  |      |
|----|--|------|
| 1. | Registered Engineer with the Council for the Regulation of Engineering in Nigeria (Reg. No. 10974) | 2005 |
| 2. | Diploma in Data Processing and Computer Application  | 2002 |
- VI SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (WITH DATE).**
- |  |  |      |
|--|--|------|
|  | Federal Government Grant for PhD at ₦500,000 per session           | 2008 |
|  | The best graduating student in the Department of Civil Engineering | 1997 |
|  | PTDF Grant for Advanced Education on Pedagogy in Grenoble France   | 2014 |
- VII HONOURS, DISTINCTIONS AND MEMBERSHIP OF LEARNED SOCIETIES**
- |    |   |      |
|----|---|------|
| 1. | Corporate Member, Nigerian Society of Engineers (Reg No. 12778) | 2002 |
|----|---|------|
- VIII DETAILS OF TEACHING / WORK EXPERIENCE**
- (a) Teaching Experience at the University of Ibadan**
- | Course  | Course Title          | Units | Sessions Taught        |
|---------|-----------------------|-------|------------------------|
| TCE 211 | Introduction to Civil | 2.0   | 2001/2002 to 2018/2019 |

	Engineering		
TCE 222	Theory of Structures	3.0	2003/2004
TCE 311	Land Surveying	3.0	2000/2001 to date
TCE 313	Structural Analysis I	3.0	2009/2010 to 2011/2012
TCE 314	Structural Design I	3.0	2004/2005 to 2007/2008
TEC 322	Soil Mechanics	3.0	2005/2006 to 2009/2010
TEC 412	Foundation Engineering, I	3.0	2004/2005 to 2010/2011, 2015/2016 – 2021/2022
TCE 413	Structural Analysis II	3.0	2001/2002 to 2003/2004, 2009/2010 to 2010/2011
TCE 415	Hydrology	3.0	2001/2002 to 2003/2004
TCE 516	Water Resources Management	3.0	2003/2004 to 2004/2005
TCE 517	Public Health Engineering	3.0	2004/2005
TCE 522	Foundation Engineering II	3.0	2005/2006 to 2015/2016, 2015/2016 – 2018/2019
TCE 524	Advanced Structural Mechanics	3.0	2001/2002 to 2004/05
TCE 527	Water Supply	3.0	2000/2001, 2002/2003, 2010/2011
TCE 528	Waste Management Engineering	3.0	2002/2003 to 2003/2004
TCE 599	Civil Engineering Project	6.0	2000/2001 to date
TCE 703	Advanced Soil Mechanics	3.0	2011/2012 to date
TCE 710	Advanced Steel and Metal Structures	3.0	2009/2010 to 2011/2012
TCE 738	Soil Testing Theory	3.0	2012/2013 to date
TCE 737	Advanced Foundation Engineering	3.0	2012/2014 to date
TCE 741	Reliability in Geotechnical Engineering	3.0	2012/2013 to date
TCE 798	Seminar	1.0	2009/2010 to date
TCE 799	Civil Engineering Project	6.0	2009/2010 to date
TCM 706	Research for Policy and Practice	4.0	2012/2013 to date

**b Teaching Experience at the Obafemi Awolowo University as Visiting Scholar  
(September 2012 to December 2014)**

	Course Code and Title	Unit	% Involvement
i.	CVE 301 – Surveying I	3	50
ii.	CVE 407 – Geotechnical Engineering I	3	100
iii.	CVE 411 – Structural Analysis II	3	100
	CEG 621 – Advanced Soil Mechanics	3	100
iv.	CEG 622 – Experimental Soil Mechanics	2	100

v.	CEG 625 – Site Investigation	2	100
vi.	CEG 605 - Advanced Foundation Design	3	100

**c. Teaching Experience at the Elizade University as Adjunct Professor (2017 to 2021)**

	<b>Course Code and Title</b>	<b>Unit</b>	<b>% Involvement</b>
i.	CVE 303 – Engineering Geology	3	100
ii.	CVE 306 – Soil mechanics	3	100
iii.	CVE 407 – Design of structures II	3	100
iv.	CVE 409 – Elements of Foundation Engineering	3	100
v.	CVE 507 – Structural Analysis II	2	100
vi.	CVE 508 – Design of Structures III	3	100
vii.	CVE 510 – Geotechnical Engineering	3	100
viii.	CVE 524 - Advanced Soil Mechanics	3	100

**d. Teaching Experience at the Landmark University as Professor (Sabbatical ) (May 2021 to 2022)**

(i)	CVE 314 – Introductory Engineering Geology	3	100
(ii)	CVE 412 – Foundation Engineering	2	100
(iii)	CVE 523 – Design of Structures III	3	100
(iv)	CVE 528 – Geotechnical Engineering	3	100
(v)	CVE 530 - Advanced Foundation Engineering	2	100
(vi)	CVW 823 – Dam, Embankment and Seepage	3	100
(vii)	CVE 920 – Research Methodology	3	100

**(b) Research Supervision:**

*Completed:*

MSc 40

Ph.D. 1

MPhil 0

*Ongoing:*

MSc 8

Ph.D. 4

MPhil 1

**(c) Administrative Responsibilities:**

-Faculty Representative in ICT and Computer Committee; 2004 - 2008

-Departmental Undergraduate Coordinator; 2004 - 2009

-Departmental Representative at Industrial Training Coordination Centre; 2004 - 2009

-Member, Departmental Computer, Examination, and Result Committee; 2001 to date

-Faculty Representative, Board of Survey; 2008 - 2010, 2016 to 2021

-Departmental Postgraduate Coordinator; 2010 – 2013, 2015 - 2018

-Assistant Hall Warden, Independence Hall of Residence; 2011- 2014

-Member, Faculty Cleaning Committee; 2007 to date

- Member, Faculty Board of Studies 2001 to date
- Member, Department of Civil Engineering Curriculum Committee.
- Member, Faculty of Technology Conference Committee 2017 to 2021
- Member, Civil Engineering Department Finance Committee; 2015 to 2021
- Departmental Representative on Faculty of Technology Curriculum & Timetable Committee; 2004 - 2008 and 2010– 2018
- Member, Department of Civil Engineering Board of Studies. 2001 to date.
- Chairman Technical Sub-committee, Senior Staff Housing Committee; 2012 to date
- Faculty Representative, Junior Staff Appointment and Promotion Committee; 2016 to date
- Faculty Representative, Faculty of Science Board of Studies 2023 to date
- Acting Head of Department of Civil Engineering from 1 August.2018 to 31 July 2020.
- Member, University of Ibadan Senate 2020 to date
- Head of Department of Civil Engineering from 1 August 2024

## **IX RESEARCH**

### **(a) Completed**

1. Stability of slip surfaces or sloped Soils
2. Impact of Inorganic salts on soil geotechnical properties
3. Influence of termites on soil geotechnical properties
4. Use of cow bone, wood, and rice husk ashes as soil stabilisers
5. Soil improvement using locally available materials

### **(b) Research in Progress**

#### **1. Soil Stabilisation or Improvement**

This involves the development of a cold solution of expanded polystyrene, pet bottle, nylon, and used serviette materials as soil stabilizers. These waste materials would be processed and used to stabilize both good and poorly-graded soils found in South Western Nigeria. The geotechnical properties of the mixture (soil plus stabilizers) will be determined. Emphasis will be placed on how to convert the waste materials to better usage such as in the construction of road bases of flexible pavements. The use of microorganisms like bacteria in soil stabilization will also be investigated. This will be collaborative research between two departments – Civil Engineering and Micro Biology. Production of non-hydraulic cement activated with hydraulic and other inorganic chemicals for soil improvement for roads, dam embankment construction.

#### **2. Knowledge-based in Geotechnical Engineering**

This involves the generation of geotechnical charts for quick estimation of geotechnical properties of soil within the same geological zone. The research will involve dividing the chosen area into geological zone based on its parent rocks. Soil samples will be collected from each zone and their geotechnical properties measured in the laboratory. For each zone, charts of fine to coarse aggregate ratio against soil geotechnical property would be plotted. The charts would be used for the approximate determination of soil geotechnical properties. The study will be out carried in major cities in South Western Nigeria.

Soil index properties such as grain size analysis and Atterberg limits would be correlated with their geotechnical properties such as California bearing ratio, shear strength parameters, and coefficient of permeability. The research would be carried out in Southwestern Nigeria. The models to be generated would serve as a tool for the quick determination of soil geotechnical properties from their index properties.

### 3. **Reinforced Earth**

This is another method of stabilizing troublesome or weak earth (soil) with fibers. Local fibers would be obtained from bamboo, rattan cane, worn-out tires, etc. The fibres would be subjected to durability tests and mixed with soils in different proportions. The soil fibre mixtures' geotechnical properties such as index, permeability, confined compression, shear strength, California bearing ratio, and settlement rate would be monitored.

### 4. **Structure Failures**

This involves studying mechanics leading to failure and devising means to ameliorate them.

### 5. **Soil Remediation**

Soil contamination in Nigeria is becoming rampant and there is a need to come up with appropriate methods to de-contaminate such soil. Methods like the use of electrical current and suitable electrodes to precipitate ions present in the soil are becoming popular in the advanced world. Research of this nature is collaborative research between departments of Civil Engineering and Electrical and Electronic Engineering. The research will focus on how to come up with suitable electrodes to be used in decontaminated soil containing metals. The presence of crude oil in soil affects bonds among soil particles and invariably affects soil geotechnical properties. Various means of improving bonds among crude oil contaminated soil will be investigated with a focus on Niger Delta areas.

### 6. **Soil Dynamics**

This entails study of earth tremors and device means of preventing side effects on existing building with focus on South Western Nigeria.

#### (c) Project, Dissertation, and Thesis:

- (i) Ayinuola, G. M. (1997). A Generalised Method of Analysing Slip Surface. B.Sc Project, Department of Civil Engineering, University of Ibadan.
- (ii) Ayinuola, G. M. (2000). The Effect of Hydrostatic Pore Water Pressure Forces on the Stability of Earth Embankments. M.Sc Project, Department of Civil Engineering, University of Ibadan.
- (iii) Ayinuola, G.M. (2010). Geotechnical Evaluation of Soils Contaminated with Inorganic Salts as Foundation Based Materials. Ph.D. Thesis, Department. of Civil Engineering. University of Ibadan.

## **X EXTERNAL WORK OUTSIDE THE UNIVERSITY OF IBADAN, IBADAN**

1. External Examiner Department of Civil Engineering Obafemi Awolowo University Ile-Ife. 2011, 2020, 2021.
2. External Examiner Department to the Civil Engineering Ladoké Akintola University of Technology Ogbomoso. 2018 to date
3. External Examiner to the Department of Civil Engineering Federal Polytechnic Ede. 2012 - 2013
4. Adjunct Lecturer Department of Civil Engineering Adeleke University 2017
5. Visiting Lecturer Department of Civil Engineering Obafemi Awolowo University Ile-Ife 2012 to date

6. External Examiner Faculty of Engineering and the Built Environment Tshwane University of Technology South Africa. 2018
7. Adjunct lecturer at Elizade University Ilara-Mokin Ondo State Nigeria 2017 to 2021
8. Adjunct Lecturer at Technical University Ibadan, Oyo State Nigeria. 2023 to date
9. External Examiner Department of Civil Engineering Osun State University 2021
10. External Examiner Department of Civil Engineering Federal University of Technology Akure 2021 to date
11. External Examiner Department of Civil Engineering University of Benin 2021 to date.
12. External Examiner Department of Civil Engineering Covenant University Ota Ogun State Nigeria. 2019 to date
13. External Examiner Federal University of Oye Ekiti 2023 to date
14. External Examiner Olabisi Onabanjo University 2024

## XI PUBLICATIONS

### a) Books already published

### b) Chapters in Books already published

1. **Ayinuola, G.M.** and Mustapha, H. (2005): Our Environment and Refuse: Olorunda Local Government Area Osogbo as a case study: In *Environmental Sustainability and Conservation in Nigeria*, Okoko, E., Adekunle, V.A. and S.A. Adeduntan (Editors); ISBN: 978-37981-0-3, Environmental Conservation and Research Team, Federal University of Technology, Akure Nigeria pp 97 – 102 (Nigeria) Percentage Contribution – 75.
2. Franklin, S.O. and **Ayinuola, G.M.** (2012): Influence of the Phreatic Level on the Stability of Earth Embankments: In *Infrastructure Design, Signalling and Security in Railway*, Dr. Xavier Perpinya (Ed.), ISBN: 978-953-51-0448-3, pp 375 - 394. (Croatia) Percentage Contribution – 50.
3. Adekitan, O. A. and **Ayinuola, G. M.** (2018) Calcined Clay-Cement Stabilisation – Physicochemical Attributes and Stabilised Strengths of a-1-a and a-2-6 Soils. In *Calcined Clays for Sustainable Concrete*, Matirena, F., Fairier, A. and Scriverer, K. (eds). ISBN: 979-94-024-1206-2.

### c) Articles that have already appeared in Refereed Conference Proceedings

4. **Ayinuola, G.M.** and Moody, T.T. (2011) Brine influence on cement stabilized bricks compressive strength. *Proceeding of Civil 2011 Failure Menace 3rd Annual Conference held at University of Ilorin*, July 6 to 9, 2011. Pp 94 – 99 (Nigeria).
5. **Ayinuola, G.M.** and Agbede, O.A. (2012) Development of predictive model for investigating effect of sodium chloride on soil geotechnical properties. *Proceeding of the IASTED Int. Conf. Modelling and Simulation (AfricaMS 2012) September 3 to 5, 2012 Gaborone*. pp 126 – 132 (Botswana).
6. **Ayinuola, G.M.** and Denloye, A.O. (2014) Influence of Bone Ash on Soil California bearing ratio. *Proceeding of the SRIC International Conference On Emerging Trends For Sustainable Development And Human Capacity Building In The Third World Nations ICETSDHCB, held at the University of Ghana*, May 28 – 31, pp 572 – 574 (Ghana).
7. **Ayinuola G.M.** and Kwashima O.F. (2015) Effect of Diesel Oil Contamination on Soil Natural Recharge of Groundwater. *Proceeding of 2nd International Conference on Geological and Civil Engineering held at Flora Grand Hotel in Dubai UAE*. January 10 – 11, 2015, pp 43 – 46. (UAE).

8. **Ayininuola G.M.** (2015) Enhancement of Soil Particles Binding Energy Using Terassil Solution. *Proceedings of 1<sup>st</sup> Faculty of Technology Conference, held at Conference Centre University of Ibadan, Nigeria, July 6 – 8 2015*, Pp 228 – 231.
9. **Ayininuola, G. M.** Akinyemi, T. S. and Adekitan, O. A. (2017) Potentials of cement=blast furnace slag mixture on compaction characteristics and California bearing ratio. *Proceedings of the OAU Faculty of Technology Conference 2017*, pp. 23 – 30.
10. Adekitan, O. S. and **Ayininuola, G. M.** (2017) Potentials of calcined clay as cement supplement in lateritic soil stabilization. *Proceedings of the OAU Faculty of Technology Conference 2017*, pp. 52 – 57.
11. **Ayininuola, G. M.** and Moshood, M. O. (2018) Utilisation of Animal Hair Fibre for Soil Stabilisation. *Proceeding of the 2018 International Conference on STEM: A driven force for Sustainable Development COLENG 2018 at Federal University Agriculture, Abeokuta*. Pp. 513 – 518.
- 12 **Ayininuola, G.M.**, Balogun, L.A. and Busari, T.A. (2019) Effect of Cassava Effluent On the Geotechnical Properties of Soil. *Proceeding – 6th Putrajaya International Built Environment, Technology and Engineering Conference (PIBEC6), 15 – 16 April 2019. Bangi Resort Hotel, Bangi, Malaysia*. Pp. 41 - 49.
- 13 Adeniji A. A., **Ayininuola G. M.**, Ajanaku O. J. (2019) Comparative Analysis of Portland Lime Cement (PLC) Sourced From Different Production Brands in Nigeria and Its Concrete Properties. *Proceedings of the 2019 Civil Engineering Conference on Sustainable Construction for National Development, University of Ibadan, Nigeria, 10 - 12 July 2019*. Pp 81 – 87.
- 14 Yabefa, B. E., Olutoge, F. A. and **Ayininula, G.M.** (2019) Influence of Sodium Silicate to Sodium Hydroxide Ratio on Compressive Strength of Periwinkle Shell Ash Based Geopolymer Mortar. *Proceedings of the 2019 Civil Engineering Conference on Sustainable Construction for National Development, University of Ibadan, Nigeria, 10 - 12 July 2019*. Pp 124 – 133.
- 15 Buari, T.A., Olutoge, F.A., **Ayinnuola, G.M.** (2020) Relationship between Compressive Strength and Modulus of Elasticity of self-Consolidating High-Performance Concrete (SCHPCS) Incorporating GSA as GSM. *The Int. Conf. on Emerging Trends in Engineering and Technology (IConETech 2020) Faculty of Engineering, The UWI, St Augustine, June 1 – 5, 2020*. Pp. 420 – 440.

**d) Patent**

**e) Articles that have already appeared in learned journals**

16. **Ayininuola, G.M.** and Olalusi, O.O. (2004) Assessment of Building Failures in Nigeria: Lagos and Ibadan case study. *African Journal of Science and Technology*, Vol. 5. No. 1, 73 - 78. (Kenya).
17. **Ayininuola, G.M.** and Popoola, M.O. (2004) Physical and Chemical Hazards of Solid Wastes: Ibadan North as case study. *Journal of Civil Engineering Research and Practice* Vol.1. No.2, 17 - 26. (Kenya).
18. Franklin, S.O. and **Ayininuola, G.M.** (2006) Development of Stability Charts for Homogeneous sloped Soil. *Botswana Journal of Technology, University of Botswana*, Vol. 15. No 2, 5 - 14. (Botswana).
19. **Ayininuola, G.M.** and Muibi, M.A. (2008) An Engineering Approach to Solid Waste Collection System: Ibadan North as a case study. *Waste Management*, Vol. 28. 1681 – 1687 (USA).

20. **Ayininuola, G.M.** (2009) Variability in Geochemical Properties of Termitaria: University of Ibadan case study. *Pacific Journal of Science and Technology*, Vol. 10. No.1, 567 - 572 (USA).
21. **Ayininuola, G.M.**, Agbede, O.A. and Franklin, S.O. (2009) Influence of Calcium Sulphate on subsoil cohesion and angle of friction. *Journal of Applied Sciences Research*, Vol. 5. No. 3, 297 – 304. (USA).
22. **Ayininuola, G.M.** (2009) Water quality effect on concrete compressive strength: Ogunpa stream water case study. *Civil Engineering Horizon*.  
Link: <http://horizon.webinfolist.com/materials/2009/ayininoula/ogunpa.htm> (USA).
23. **Ayininuola, G.M.** (2009) Influence of diesel oil and bitumen on compressive strength of Concrete. *Journal of Civil Engineering IEB*, Vol. 37, No. 1, 65 – 71 (Bangladesh).
24. **Ayininuola, G.M.** and Agbede, O.A. (2009) Influence of Sodium Chloride on subgrade soil California bearing ratio. *Pacific Journal of Science and Technology*. Vol. 10. No.1, 573 - 580 (USA).
25. **Ayininuola, G.M.** and Franklin, S.O. (2010) A Generalized Method of analyzing Stability of sloped soils. *Journal of Applied Sciences Research*, Vol. 6, No.11, 1771- 1780 (USA).
26. **Ayininuola, G.M.** and Ojo, O.M. (2010) Wastewater recycling: University of Ibadan a case study. *International Journal of Environmental Issues, Development Universal Consort*, Vol. 7, 22 – 35 (Nigeria).
27. Franklin, S.O. and **Ayininuola, G.M.** (2010) Stability Tables for Sloped Soils using Simplified Approach. *Journal of Applied Sciences Research*, Vol. 6, No. 11, 1871- 1879 (USA).
28. **Ayininuola, G.M.** and Agbede, O.A. (2012) Effect of brine intrusion on soil bearing capacity. *Ozean Journal of Applied Science*, Vol. 5, No. 3, 200 – 208 (Turkey).
29. **Ayininuola, G.M.** and Agbede, O.A. (2013) Influence of Inorganic Salts on Soil Liquid and Plastic Limits. *Civil Engineering Dimension* Vol. 15, No. 1, 51 – 60 (Indonesia).
30. Oyegbile, O.B and **Ayininuola, G.M.** (2013) Laboratory Studies on the Influence of Crude Oil Spillage on Lateritic Soil Shear Strength: A Case Study of Niger Delta Area of Nigeria. *Journal of Earth Sciences and Geotechnical Engineering*, Vol. 3, No. 2, 73-83 (UK).
31. **Ayininuola, G.M.** and Olaosebikan, O.I. (2013) Influence of Rice Husk Ash on Soil Permeability. *Transnational Journal of Science and Technology*, Vol. 3, No. 10, 29 – 33 (Turkey).
32. **Ayininuola, G.M.** and Oyedemi, O.P. (2013) Impact of Hardwood and Softwood Ashes on Soil Geotechnical Properties. *Transnational Journal of Science and Technology*, Vol. 3, No. 10, 1 – 7 ( Turkey).
33. **Ayininuola, G.M.** and Sogunro, A.O. (2013) Bone ash Impact on Soil Shear Strength”. *International Journal of Environmental, Earth Science and Engineering, World Academy of Science and Technology*. Vol. 7, No. 11, 330 – 334 (USA).
34. **Ayininuola, G.M.** and Oladeji, O.S. (2013) Nylon Solution as Soil Stabilizer”. *International Journal of Environmental, Earth Science and Engineering, World Academy of Science and Technology*. Vol. 7, No. 11, 108 – 110 (USA).
35. **Ayininuola, G.M.** (2014) Decomposed Solid Waste Impact on Soil Shear Strength and California Bearing ratio. *IOSR Journal of Mechanical and Civil Engineering*, Vol. 11. No. 3, 15 – 17 May – June 2014 (USA).
36. **Ayininuola, G.M.** (2014) Termite Social Insect Impact on Soil Geotechnical Properties. *IOSR Journal of Mechanical and Civil Engineering*, Vol 11 No. 3, pp 18 – 20 May – June 2014 (USA).

- 37 **Ayininuola, G.M.** and Agbede, O.A. (2014) Sodium and Calcium Salts Impact on Soil Permeability. *Journal of Earth Sciences and Geotechnical Engineering*, Vol. 4, No. 3, 37 – 45 (UK).
- 38 Kazeem K. Adewole, **Gbenga. M. Ayininuola**, Wasiru O. Ajagbe, Olabisi Akinade (2014) Effect of the Portland-Limestone Cement Grades on the Compressive Strength of Hollow Sandcrete Blocks. World Academy of Science, Engineering and Technology *International Journal of Civil and Environmental Engineering*, Vol:8, No:6, pp 762 - 766.
- 39 **Ayininuola G.M.** and Ayodeji, I.O. (2016) Influence of Sludge Ash on Soil Shear Strength. *Journal of Civil Engineering Research*, Scientific and Academic Publishing. Vol. 6, No. 3, 72 – 77. (USA).
- 40 **Ayininuola, G.M.** and Oladotun, P.O. (2016) Geotechnical Properties of Coconut Coir Fibre. *Journal of Civil Engineering Research*, Scientific and Academic Publishing. Vol. 6, No. 4, 79 – 85.
- 41 **Ayininuola, G.M.** and Akinniyi, B.D. (2016) Bone Ash Influence on Soil Consolidation. *Malaysian Journal of Civil Engineering*, 28(3):407 – 422.
- 42 **Ayininuola, G.M.** and Adekitan, O. A. (2016) Characterisation of Ajebo kaolinite Clay for production of Natural Pozzolan, *International Journal of Civil, Environmental, Structural, construction and architectural Engineering*, World Academic of Science, 10(9): 1222 – 1229
- 43 Adekitan, O. A. and **Ayininuola, G.M.** (2017) Optimizing the thermal treatment of Abeokuta kaolin (south-west Nigeria) for production of natural pozzolan. *African Journal of Science, Technology, Innovation and Development*, Taylor and Francis, 7: 361 -365.
- 44 **Ayininuola, G. M.** and Adekitan, O. A. (2017) Compaction Characteristics of lateritic soils stabilised with cement-calcined clay blends. *Journal of Silicate Based and Composite Materials*, 69(2):34 – 39.
- 45 **Ayininuola, G. M.** and Fadele, O. (2017) Stabilising sandy soil using reworked earth material. *Journal of Environmental and Earth Science*, 7(3): 75 - 79.
- 46 **Ayininuola, G. M.** and Abidoye, S. P. (2018) Soil Stabilisation Using Bitumen Emulsion and Cement Combination as Additive. *Journal of Earth Science and Engineering*, 8:66 – 74.
- 47 **Ayininuola, G. M.** and Udoh, E. G. (2018) Geotechnical Properties of Flax fiber stabilized Soil. *Journal of Earth Science and Engineering*, 8: 75 – 82.
- 48 **Ayininuola, G. M.** and Afolayan, O. D. (2018) Potential of Oyster Shell Ash Activated with Cement as Soil Stabilizer for Road Construction, *International Journal of Engineering and Advanced Technology*, 8(5): 118 – 126.
- 49 **Ayininuola, G. M.** and Balogun, L. O. (2018) Investigation of Glass Fiber Potential in Soil Stabilisation, *International Journal of Engineering and Advanced Technology* 8(5): 113 – 117.
- 50 **Ayininuola, G.M.**, Salami, M.O., Salami, L.O. (2018) Investigating the Geotechnical Properties of Clay-Gravel Mixtures. *International Research Journal of Advanced Engineering and Science*, Volume 4, Issue 1, pp. 40 - 41.
- 51 Buari T.A., **Ayininuola G. M.**, Agbede O. A. and Esan M.T (2019) Effects of varying Recycled Glass and Groundnut Shell Ash on Strength and durability Properties of Self Consolidating High-Performance Concretes (SCHPC). *International Research Journal of Engineering and Technology (IRJET)*, Volume: 06 Issue: 03, pp. 33 - 43.
52. Buari, T.A., Olutoge, F.A., **Ayininuola, G.M.**, Okeyinka, O.M. and Adeleke, J.S. (2019) Short term durability study of groundnut shell ash blended self-consolidating high-performance concrete in sulphate and acid environments. *Asian Journal of Civil Engineering*, Vol. 20 Issue 5, pp. 627 -636.

- 53 Oriyomi M Okeyinka, David A Oloke, Waris A Adebisi, **Gbenga M Ayininuola** (2019) Investigation into the applicability of brewery sludge residue-ash as a base material for geopolymer concrete, *Construction and Building Materials*, Elsevier, vol. 223, pp. 28 – 32.
- 54 Buari, T.A., Olutoge, F.A., **Ayininuola, G.M.** Okeyinka, O.M. and Adeleke, J.S. (2019) Short-term durability study of groundnut shell ash blended self-consolidating high-performance concrete in sulphate and acid environments. *Asian Journal of Civil Engineering* (2019) 20:649 - 658.
- 55 Tijani, M.A., Ajagbe, W.O., **Ayininuola, G.M.**, Dahunsi, B.I.O. and Agbede, O.A. (2020). Compressive Strength of Concrete Using Sorghum Husk Ash and Calcium Chloride. *UI Journal of Civil Engineering and Technology*, vol. 2(1), pp 36 – 42.
- 56 TA Buari, JS Adeleke, FA Olutoge, **GM Ayininuola**, BIO Dahunsi (2023) Approximation of elasticity modulus of groundnut shell ash-based self-consolidating high-performance concrete using an artificial neural network. *Asian Journal of Civil Engineering*, vol. 24 (4): 947-958.
57. **Ayininuola, G.M.** and Bajomo, O.S. (2023) Utilization of Crude Oil-Contaminated Soil as a Foundation Base for Structures (Road and Buildings in the Oil-Polluted Region). *LAUTECH Journal of Civil Engineering*, vol. 11(1): 76 – 84.
- 58 Odunuga, S.A. and Ayininuola, G.M. (2025) Settlement Characteristics of Expansive Soils Stabilised with Agricultural Waste Using Corn-Cob Ash. *Digital Innovations and Contemporary Research in Science, Engineering and Technology*, Vol 13(1): 35 – 60.
59. Akolade A. S., **Ayininuola G. M.** and Ogunjobi A. A. (2025) Microbial Treatment of Soil Using Calcite-Inducing Bacteria: Impact on Specific Gravity. *Journal of Architecture and Civil Engineering* vol.10(6): 15-24.
60. Akolade A. S., **Ayininuola G. M.** and Ogunjobi A. A. (2025). Influence of Soil Microbial Inoculation on the Cohesion of Soil. *International Journal of Engineering Research and Development*, vol. 21(6): 45 – 54.
- 61 Ajayi, O. E., **Ayininuola, G. M.** and Hassan, D. E. (2025) Utilization of Steel Slag in Cement Stabilised Lateritic Soil for Sustainable Road Construction. *Journal of Scientific and Engineering Research* vol. 12(9): 1 – 9.
- 62 Oyelayo, T. E., **Ayininuola, G. M.** And Adetunji, O. I. (2025). Investigation Of Plate Load Test In Soil Stabilisation Using Stone Columns, Case Study: Owode Elede, Lagos State, Nigeria. *International Journal of Earth Design and Innovation Research* Vol. 10(4): 129 – 138.
- 63 Adeleye, A. M., Ayininuola, G. M. and Ogundiran, M. B. (2025). Characterisation of Nigerian Mining Waste Clays as Sustainable Precursors for Production of Low-Carbon Geopolymer Binders. *International Journal of Earth Design and Innovation Research*, Vol. 10: 1 – 26. DOI: <https://doi.org/10.21203/rs.3.rs-7214593/v1>.
- 64 Fasugba, L.B. and **Ayininuola, G.M.** (2026) Characterisation of Soft Soil Strength Properties and Settlement Behaviour. *Journal of Engineering Research and Reports* vol. 28(2): 75 - 100

## **XII PROFESSIONAL EXPERIENCE RECORDS**

### **March – September 1996**

Employed by 158 BARASEL Ltd. As an Attaché on the following projects:

- (i) Construction of office building and rigid pavement within the factory premises of NIPEN Nig. Ltd. Ikeja Lagos.
- (ii) Construction of office building for ABB Nig. Ltd. Oshodi Lagos.

**June 1997 – May 1998**

Employed by VERALLEN Nig. Ltd. Sokoto as an Assistant Site Engineer (National Youth Service) on the following project:

- (i) Construction of Kassarawa – Silame surface dressing road for Sokoto State Government.

**September 1998 – August 1999**

Employed by the University of Ibadan as a Teaching Assistant in the Department of Civil Engineering for teaching, researching and practicing.

**March – August 2000**

Employed on a part time basis by FBG Engineering Company Ltd. Lagos as an Assistant Site Engineer on the following project:

- (i) Refurbishment of the Department of Catering and Hotel Management for Lagos State Polytechnic Ikorodu Lagos.

**May 2001 – 2004**

Employed by Dr. Bayo Okunade on consultancy basis as Site Engineer on the following project:

- (i) Construction of two residential buildings of a storey each for Mr. K. Badru at Ajibode Reset Scheme Ibadan.

**February 2002 – 2004**

Employed on a consultancy basis by KONSADEM Associates Ltd, Ibadan as Resident Engineer on the following projects:

- (i) Ogunpa Channelisation project in Ibadan:
  - Supervision of the construction of 32 metres span each of the Omitowoju and Atowoda bridges
  - Supervision of the construction of the channel
  - Supervision of flexible pavement access road
- (ii) Feasibility studies of Ilesa and Okitipupa Water Projects:
  - Design of 26 metres concrete gravity dam
  - Taking part in the other feasibility study works

**February 2005 – 2006**

Employed on a consultancy level as one of the Project Engineers by AGRALEC NIG. LTD, Akowojo Agege, Ibadan, on the project:

- Completion of the ongoing construction work at Iwo road, Ibadan, involving the erection of silo and accessories, road construction (Flexible and rigid) pavement and office buildings.

**2006 – till date**

Consultancy services such as design and construction of civil engineering structures (buildings, drainage, foundations), soil geotechnical investigations, such as:

- (a) Geotechnical investigation of the proposed land for 30 thousand capacity auditorium for Deeper Christians Life Ministry at Sogunro, Ibadan – determination of soil bearing pressure using Standard Penetration Test in August 2017.
- (b) Drilling of Borehole at Oloko Apata Ibadan, involving geophysical survey and drilling of borehole to the required water stratum in February 2018.
- (c) Drilling of Borehole at Sagbe Moniya Ibadan involving geophysical survey and drilling of borehole to the required water stratum in February 2020.
- (d) Geotechnical investigation of the proposed land for a 4-storey building at Adenuga Street, Bodija Ibadan – determination of soil bearing pressure using Standard Penetration Test in April 2021
- (e) Head Geotechnical Section of the Consultancy Unit of the Department of Civil Engineering, University of Ibadan with the execution of the following works:
  - i) The Design / Supervision of Erosion Control Project of Ibadan Electricity Distribution Company (IBEDC) at Adogba 33/11KVA Injection Sub-station, Ibadan, Nigeria (2017).

- ii) Geotechnical investigative works of the 1st and 2nd pools of the construction of four major river channels in Ibadan metropolis under the Ibadan Urban Flood Management Project (IUFMP). Jan. 2021 to date.
- iii) Geotechnical investigative works of the 1st and 2nd Pool of construction of about thirteen (13) hydraulic structures (culverts and bridges) along the four major river channels in Ibadan metropolis to determine their suitable depths of foundation. This is also under the Ibadan Urban Flood Management Project (IUFMP).
- iv) Geotechnical investigative works of the 3rd Pool of construction of the Ona River channel in Ibadan metropolis under the Ibadan Urban Flood Management Project (IUFMP).
- v) Geotechnical investigative works of the 3rd Pool of construction of about thirteen (8) hydraulic structures (culverts and bridges) along the Ona River channel in Ibadan metropolis to determine their suitable depths of foundation. This is also under the Ibadan Urban Flood Management Project (IUFMP).

Note: the works of entail the determination of the geotechnical properties of underlying soils and rocks within the subsurface of proposed construction sites. As Quality Control Consultant for the geotechnical investigation, the Department of Civil Engineering, University of Ibadan, supervised the fieldwork component of the investigation, which involved drilling boreholes and obtaining soil and rock samples, and further carried out laboratory analyses of the samples. The purpose of the investigation was to characterise the subsurface soil and rock conditions and determine their properties and suitability for culvert construction.

- vi) Geotechnical investigation of subgrade, subbase and base and control of field compaction for Dephannys Venture Ltd, CGC Nig Ltd and Intecon Partnership on Oyo State Rural Access and Agricultural Marketing Project.
- vii) Geotechnical investigation of a site within the University of Ibadan (Faculty of Economics) for a multistorey hostel for students for 360-degree ltd.
- viii) Geotechnical investigation of 1.5ha of land for a private hostel near Pan African University (PAU), Ajibode, Ibadan, for Kabiyesi Jacob's Company.
- ix) Geotechnical investigation of 2.5 ha of land for a private hostel at Ladoke Akintola University of Technology, Ogbomoso.
- x) Principal investigator of multi-disciplinary Geo-Evaluation and Resource Assessment on Geo-Fluid bitumen concession's Okitipupa-Agbabu-Irele-Loda axis, Ondo State.

## **REFEREES**

- |  |  |
|--|--|
| <p>(a) <b>Prof. A.O. Coker</b><br/>           +2348033644074<br/>           cokerwale@yahoo.com<br/>           Department of Civil Engineering<br/>           University of Ibadan<br/>           Ibadan, Nigeria.</p> | <p>Department of Civil Engineering<br/>           University of Ibadan<br/>           Ibadan, Nigeria.</p>   |
| <p>(b) <b>Prof. O. A. Agbede</b><br/>           +2348033847722<br/>           oluwoleagbede@gmail.com</p>  | <p>(c) <b>Prof. B.I.O. Dahunsi</b><br/>           +234803033261699<br/>           deledahunsi@gmail.com<br/>           Head of Department<br/>           Department of Civil Engineering<br/>           University of Ibadan</p> |