

Brief Biography of Engr. Prof. Akinyele Joseph Olawale

Engr. Prof. Akinyele, Joseph Olawale obtained his Bachelor of Science (Hons) in Civil Engineering from the University of Ibadan, Nigeria, and later his M.Sc. and Ph.D. from the same University. After graduation, he took part in the mandatory one-year, National Youth Service Corps (NYSC) program in the Works and Services department of Charanchi Local Government of Katsina State. He is a registered Engineer with the Council for the Regulation of Engineering in Nigeria (COREN).

He joined Etteh- Aro and Partners, Ibadan after his service year for a brief stint before working for some other construction companies like Aqua Project Nigeria Ltd., Quadriga Ltd., Concrete Structures Nigeria Limited and BCL Construction Company, Lagos. He joined the services of the Federal University of Agriculture, Abeokuta in September 2007 as a lecturer grade II, where he rose through the ranks to become a Professor of Civil Engineering Structures in the University in 2021.

He is passionate about teaching and research and this has resulted in the publication of about 60 research articles in international conferences, chapter in books and highly reputable journals.

As a professional Civil/Structural Engineer, Prof. Akinyele has handled many designs and construction works which included the New FUNAAB College of Engineering Building, and many others too numerous to mention. He is a well-rounded Civil Engineer. His hard work resulted in his getting a Letter of commendation from the Ag. Vice Chancellor, Federal University of Agriculture, Abeokuta on the rehabilitation of the FUNAAB- Alabata Road in 2017.

He was the Ag. Head of Department of Civil Engineering from 2016 to 2018. He is a member of the University Senate and the Student disciplinary committee, and has served in many other committees within the University.

Prof. Akinyele has taught courses like Structural Analysis, Strength of Materials, Design of Structures, Bridge Design, Advanced Structural Mechanics, Numerical Methods in Structural Engineering, Finite Element Methods and many more at the Federal University of Agriculture, Abeokuta and as an adjunct lecturer in the University of Ibadan at both the Undergraduate and Postgraduate levels. He has been an external examiner to the Covenant University Otta, and the University of Lagos.

He has successfully supervised two (2) Doctor of Philosophy (PhDs), over 13 Master of Engineering and numerous Bachelor of Engineering thesis and dissertations. He has attended many trainings and conferences within and outside Nigeria.



PERSONAL

AKINYELE Joseph Olawale

(i) Department of Civil Engineering, Federal University of Agriculture, Abeokuta.

(ii) *E-mail Address:* akinyelejo@funaab.edu.ng

(iii) *Phone Number:* 08033847307

(iv) *Rank:* Professor

(v) *Designation:* Professor of Civil Engineering Structures.

(vi) *Researchgate Address:* www.researchgate.net. Akinyele Olawale

(vii) *Linkedin Address:* www.linkedin.com Olawale Akinyele

(viii) *Google Scholar Profile:* <https://scholar.google.com>. Joseph Olawale Akinyele

(ix) *ORCID Number:* 0000-0003-4287-0082

(x) *Qualification:* B.Sc, M.Sc., PhD. Civil Engineering, (Ibadan)

(xi) *Membership of Professional Bodies.*

(a). Nigerian Society of Engineers, NSE.

(b) Nigerian Institution of Civil Engineers, NICE.

(c). International Association of Bridge and Structural Engineering, IABSE.

(d) The International Union of Laboratories and Expert in Construction Materials, System and Structures (RILEM).

(xii) *Award received:*

- (a). Award from Elsevier Publishing group on the publication of an article that is linked to the United Nations Sustainable Development Goals, (The use of Polypropylene and Glass wastes in bricks). 2022.
- (b). Postdoctoral Fellowship Award of Tshwane University of Technology, Pretoria, South Africa. 2015 -2016

(xiii) *Research Conducted:*

- (a) The use of rubber crumbs as partial substitute for aggregate in concrete. (b) The use of Polyethylene waste and rubber crumbs as aggregate in Geopolymer concrete. (c) The use of Polymer rod as reinforcement in concrete. (d) Geopolymer concrete in aggressive environment. (e) Limestone Calcined Clay Cement, (LC³).

(xiv) *Conferences Attended:*

- (a). The 77th RILEM week and the 1st Interdisciplinary Symposium on Smart and Sustainable Infrastructures. University of The British Columbia, Vancouver BC Canada. September 4-8 2023.
- (b) International Conference on Structural Engineering, Mechanics and Computing, (SEMC) University of Cape Town, South Africa. (2010, 2013, 2019, 2022).
- (c). International Conference on SET (Science Engineering & Technology). COLENG 2016. Federal University of Agriculture, Abeokuta. (2016).
- (d) The 17th International Conference on Civil and Building Engineering (ICCBE 2015), Cape Town, South Africa. (Nov. 5-6, 2015).
- (e). 18th AES-ATEMA, International Conference, Toronto, Canada. (August 11-15, 2014).
- (f). International Conference on Infrastructural Development in Africa. (ICIDA), Kwame Nkrumah University of Technology, Kumasi, Ghana. (March 22-24th, 2012)
- (g). 11th AES-ATEMA, International Conference, Toronto, Canada. (August 06-10th, 2012)
- (h). 1st Science and Engineering Technology Conference, Osun State University, Osogbo, Nigeria. (March 15 -18th, 2011).

(xv) *Publications.*

Journal Articles in Print

- (1). Uzosike A.O, Ofudje E.A, Adeogun A.I, **Akinyele J.O**, Idowu M.A. (2022). Comparative analysis of bisphenol-A removal efficiency from water: equilibrium, kinetics, thermodynamics and optimization evaluation. **Journal of the Iranian Chemical Society**. Springer. <https://doi.org/10.1007/s13738-022-02628-2>
- (2). Uzosike A.O, Ofudje E.A, Akiode O.K, Ikenna C.V, Adeogun A.I, **Akinyele J.O**, Idowu M.A. (2022). Magnetic supported activated carbon obtained from walnut shells for bisphenol-a uptake from aqueous solution. **Applied Water Science**. 12 (201) 1-16. Springer. <https://doi.org/10.1007/s13201-022-01724-1>
- (3). **Akinyele J.O.**, Oyelakin S.K. (2021). Assessment of the properties of bricks made from stone dust and molten plastic for building and pedestrian pavement. **International Journal of Pavement Research and Technology**. (14) 771-777. Springer Nature, Switzerland. <https://doi.org/10.1007/s42947-020-1268-5>

- (4). **Akinyele J.O.**, Folorunsho A.B. (2021). The use of SEM/EDX analysis to investigate the pore effect on the mechanical properties of some selected tropical hardwoods. **International Journal of Engineering Research in Africa**. (56) 64-76. Trans Tech Publications Ltd, Switzerland. www.scientific.net.
- (5) **Akinyele J.O.**, Folorunsho A.B. (2021). "Strength classification of some selected African hardwood species following BS 5756 code" **Nigerian Research Journal of Engineering and Environmental Sciences**. 6(1) 207-215. Faculty of Engineering, University of Benin, Benin city. www.rjees.com
- (6). **Akinyele J.O.**, Igba U.T, Alayaki F.M, Kuye S.I. (2021) "Modelling the deformation of steel-bars in reinforced concrete beams submerged in Lagos lagoon" **Nigerian Journal of Technological Development**. 18(3). 219-228. Faculty of Engineering, University of Ilorin. Nigeria.
- (7). Igba U.T., **Akinyele J.O.**, Alayaki F.M., Kuye S.I., Oyebisi S.O. (2021). Deterioration and microstructural characterization of reinforced concrete beam buried in lagoon and fresh waters. **Nigerian Journal of Technology**. 40(2). 177-185. Faculty of Engineering, University of Nigeria, Nssuka. www.nijotech.com
- (8). **Akinyele J.O.**, Igba U.T. Ayorinde T.O. Jimoh P.O. (2020). "Structural efficiency of burnt clay bricks containing waste crushed glass and polypropylene granules" **Case studies in Construction Materials**, (13) 1-11. Elsevier Group Ltd. <https://doi.org/10.1016/j.cscm.2020.e00404>
- (9). **Akinyele J.O.**, Igba U.T. Adigun B.G. (2020). "Effect of waste PET on the Structural Properties of Burnt Bricks." **Scientific African**, (7) 1-8. Elsevier Group Ltd. <https://doi.org/10.1016/j.sciaf.2020.e00301>
- (10) **Akinyele J.O.**, Igba U.T., Akinola O.M. (2020). "Structural stress characteristics of glass fibre reinforced concrete beam." **Nigerian Research Journal of Engineering and Environmental Science**. 5(1) 97-104. Faculty of Engineering, University of Benin, Benin city. www.rjees.com
- (11). Igba U.T., **Akinyele J.O.**, Oyebisi S.O., O.B. Salawu. (2020). "The influence of formwork on the strength of reinforced concrete beam." **Journal of Civil Engineering**, 12(2). 36-41. The Nigerian Institution of Civil Engineers.
- (12). **Akinyele J.O.**, Kehinde H.A., Igba U.T. (2020). Structural efficiency of concrete containing crushed bones. **Arid Zone Journal of Engineering and Technology**. 16(4), 813-820. Faculty of Engineering, University of Maiduguri. www.azojete.com.ng
- (13). Igba U.T., **Akinyele J.O.**, Alayaki F.M., Kuye S.I. (2019). "Causes of failure in concrete elements buried in lagoon water." **Engineering Failure Analysis**, (102) Pp 425 -432. Elsevier Group Ltd. <https://doi.org/10.1016/j.engfailanal.2019.04.067>
- (14) Igba U.T., Alayaki F.M., **Akinyele J.O.**, Cosmas C.A., Olalere H.A. Oyebisi S.O. (2019) "Compressive strength of Concrete with partial replacement of coarse aggregate with sea shell using unwashed rivers sand". **Journal of Civil Engineering**, 11(3): 16-26. The Nigerian Institution of Civil Engineers.
- (15) **Akinyele, J.O.**, Toriola, I.O. (2018) "The effect of crushed plastic waste on the structural properties of sand-crete blocks". **African Journal of Science, Technology, Innovation and Development**, 10(6) Pp 709-713, (Routledge) Taylor and Francis Group, London. <https://doi.org/10.1080/20421338.2018.1496614>

- (16). **Akinyele, J.O**, Ajede, A (2018) "The use of granulated plastic waste in structural concrete". **African Journal of Science, Technology, Innovation and Development**. 10(1) Pp 169-175, (Routledge) Taylor and Francis Group, London. <https://doi.org/10.1080/20421338.2017.1414111>
- (17) **Akinyele J.O**, Odunfa S.O, Abiola .R.J. (2018). "Flexural Response of reinforced concrete waffle slab with recycled Polyethylene Terephthalate (PET) in the Topping" **FUOYE Journal of Engineerin and Technology**. 3(1) pp 143-147. Federal University of Oye, Oye Ekiti, Nigeria. <https://Engineering.fuoye.edu.ng/journal>
- (18). **Akinyele J.O**, Adewuyi A.P, Idowu M.A., Iroaganachi P.N. (2018). "The effects of varying water-cement ratio on the degradation of concrete by Sulphate salts" **FUOYE Journal of Engineering and Technology**. 3(1) pp. 152-156. Federal University of Oye, Oye Ekiti, Nigeria. <https://Engineering.fuoye.edu.ng/journal>
- (19) Igba U.T., Akinyele J.O., Alayaki F.M., Adetiloye A., Oluwatudimu O.E and Ehikhuenmen S.O. (2018). Effect of Lagoon and Fresh waters on the compressive and split tensile strength of grade 40 concrete. **Fulafia Journal of Science and Technology**. (4) 30-34. Federal University of Lafia, Nasarawa State.
- (20). **Akinyele J.O**. (2017). "Effects of rubber crumb particle distribution on the properties of rubberized concrete" **Journal of Applied Science, Engineering and Technology**. Faculty of Technology, University of Ibadan. 17(1); 83-86. www.ajol.com
- (21) **Akinyele, J.O**. Odunfa, S.O., Famoye, A.A. and Kuye S.I (2017). "Assessment of Isan-Ekiti Metakaolin as a pozzolan in concrete". **The Journal of Sustainable Technology**, 8(2): 26-35. Federal University of Technology, Akure. Nigeria. www.jost.futa.edu.ng
- (22) **Akinyele J.O**, Odunfa S.O, Kuye S.I and Famoye A.A. (2017). "Structural Behavior of Metakaolin infused Concrete Structure." **Nigerian Journal of Technology (NIJOTECH)**. 36(2): 331-338. Faculty of Engineering, University of Nigeria, Nsukka, Nigeria. <http://dx.doi.org/10.4314/njt.v36i2.2>
- (23) Adewuyi A.P., Sulaiman I.A., and **Akinyele J.O**. (2017). Compressive strength and Abrasion Resistance of Concretes under varying exposure conditions. **Open Journal of Civil Engineering**. (7) 82-99. Scientific Research Publishing. <https://doi.org/10.4236/ojce.2017.71005>
- (24) **Akinyele, J.O**, Salim, R.W & Kupolati, W.K (2016) Effect of rubber crumb on the microstructural properties of concrete. **African Journal of Science, Technology, Innovation and Development**. 8 (5-6), 467-474.(Routledge) Taylor and Francis Group, London.<http://dx.doi.org/10.1080/20421338.2016.1224611>
- (25) **Akinyele, J.O**, Salim, R.W & Kupolati, W.K (2016) Production of lightweight concrete from waste tire rubber crumb, **Engineering Structures and Technologies**, 8(3), 108-116. Taylor and Francis Group, London. <http://dx.doi.org/10.3846/2029882X.2016.1209727>
- (26) **Akinyele J.O**, Adekunle A.A and Ogundaini O. (2016) The effect of Partial Replacement of Cement with Bone Ash and Wood Ash in Concrete, **International Journal of Engineering, Annals of faculty of Engineering**, 14(4):199-204. Hunedoara University, Timisoara, Romania. <http://annals.fih.upt.ro>
- (27). **Akinyele, J.O.**, Salim R.W and Kupolati W.K. (2015). The impact of rubber crumb on the mechanical and chemical properties of concrete. **Engineering Structures and Technologies** 7(4), 196-203. Taylor and Francis Group, London. <http://dx.doi.org/10.3846/2029882X.2016.1152169>

- (28) Olaleye, O.T., **Akinyele, J.O.**, and Olateju O.T. (2015). "Characterization of Corncob Ash Pozzolan and its Performance in Concrete". **Journal of Science, Technology, Mathematics and Education (JOSTMED)**. 11(1):119-131. Federal University of Technology, Minna. Nigeria. <https://jostmed.futminna.edu.ng>
- (29) **Akinyele, J.O.**, Olateju O.T and Oikelome O.K. (2015). "Rice Husk as Filler in the Production of Bricks Using Gboko Clay." **Nigerian Journal of Technology (NIJOTECH)**. 34. (4)672-678. Faculty of Engineering University of Nigeria, Nsukka, Nigeria. <http://dx.doi.org/10.4314/njt.v34i4.2>
- (30) **Akinyele, J.O** and Hassan, R, O. (2015). "Partial Replacement of Fine Aggregate with Polypropylene fibres in Concrete Slab". **ACTA TEHNICA CORVINIENSIS- Bulletin of Engineering**, 8, (2) 119 – 124. Faculty of Engineering-Hunedoara University, Timisoara, Romania. <http://acta.fih.upt.ro>
- (31) **Akinyele, J.O.**, Salim R.W and Oyeti G. (2014). "Use of Recycled Polypropylene grains as Partial Replacement of Fine Aggregate in Reinforced Concrete Beams". **Engineering Structures and Technologies**. 6(4):184-190. Taylor and Francis Group, London. <http://dx.doi.org/10.3846/2029882X.2015.1070697>
- (32) **Akinyele, J.O** and Alade, G.A. (2014). "Application of Yield Line Theory to Pre-cast Waffle Slab." **Nigerian Journal of Technology (NIJOTECH)**. 33(1): 27-32. Faculty of Engineering, University of Nigeria, Nsukka, Nigeria. <http://dx.doi.org/10.4314/njt.v33i1.4>
- (33) **Akinyele, J.O.** and Oyeyemi, K.S. (2014). "Strength Behaviour of Concrete using Foundry sand as Aggregate", **Journal of Natural Sciences, Engineering and Technology**, 13(1) 99-108. Federal University of Agriculture, Abeokuta, Nigeria. <https://journal.unaab.edu.ng/index.php/JNSET>
- (34) **Akinyele J.O** and Alade G.A. (2014). "A comparative study on the flexural behavior of waffle and solid slab models when subjected to point load". **Journal of Civil Engineering and Architecture**. 8(5). 588-594. David Publishing. USA.
- (35) **Akinyele J.O** and Aresa S.W. (2013). "Structural characteristics of bamboo and rattan cane reinforced concrete struts". **Physical review and Research international**. 3(4): 602-611. www.sciencedomain.org
- (36) **Akinyele, J.O.** and Odewale, A.O. (2012). "An Investigation of the Structural Properties of Termite Mound as Construction Material". **Journal of Natural Sciences, Engineering and Technology**. 11 (1) 144-153. Federal University of Agriculture, Abeokuta, Nigeria. <https://journal.unaab.edu.ng/index.php/JNSET>
- (37) **Akinyele, J.O.** and Alade, G.A. (2011). "Effective utilization of bituminous asphalts waste as aggregate in concrete". **Journal of Natural Science, Engr. Tech.** 10, (1)127-135. Federal University of Agriculture, Abeokuta, Nigeria. <https://journal.unaab.edu.ng/index.php/JNSET>
- (38) **Akinyele J.O** and Olutoge F.A. (2011). "Properties of rattan cane reinforced concrete façade subjected to axial loading". **Journal of Civil Engineering and Architecture**. 5(11). 1048-1052. David publishing USA.
- (39). **Akinyele J.O.** (2011). "Comparison of computer based yield line theory with elastic theory and finite element methods for solid slabs". **International Journal of Engineering and Technology**. 3(1). 1-5. Engr Publishing, Tamil Nadu, India.

(40) Coker, A.O., Sridar, M.K.C. and **Akinyele, J.O.** (2008). "An assessment of food residuals and development of an on-site composting bin for a community in Ibadan, Nigeria". **Agricultural Engineering International: the CIGR E-journal**. Vol. X. pp. 1-13. December, www.cigr.org. USA.

(41) Coker, A.O., Sridar, M.K.C. and **Akinyele, J.O.** (2005). "A simple bin design for managing food residuals". **Biocycle- Journal of Composting and Organic Recycling**, 46 (8): 59-63., U.S. Composting Council, USA. <https://www.biocycle.net/2005/08/18/a-simple-bin-design-for-managing-food-residuals-nigeria/>

Articles in Book Chapters

(42). Igba, U.T., **Akinyele, J.O.**, Adetiloye, A., Labiran J.O. (2022). "The continuous spalling of reinforced concrete structures of the three bridges on the Lagos lagoon in Nigeria." **Current Perspectives and new dimensions in Mechanics, Modelling and Design of Structural Systems.**, pp 1271 – 1276. (Ed). Alphonse Zingoni. Published by (CRC press) Taylor and Francis Group, London United kingdom. ISBN 978-1-003-34844-3.

(43). **Akinyele J.O.**, Folorunsho A. B., Igba U.T., Omotainse P.O., and Labiran J.O. (2022). "The effect of wood microstructure on the mechanical properties of some selected tropical hardwood species used in construction." **Current Perspectives and new dimensions in Mechanics, Modelling and Design of Structural Systems.**, pp 1696 – 1702. (Ed). Alphonse Zingoni. Published by (CRC press) Taylor and Francis Group, London United kingdom. ISBN 978-1-003-34844-3.

(44). Labiran J.O., Igba U.T., Ezea B.U., **Akinyele J.O.** (2022). "Fire performance of metakolin concrete and mortar blends using Nigerian kaolin clays," **Current Perspectives and new dimensions in Mechanics, Modelling and Design of Structural Systems.**, pp 1621 – 1625. (Ed). Alphonse Zingoni. Published by (CRC press) Taylor and Francis Group, London United kingdom. ISBN 978-1-003-34844-3.

(45) **Akinyele J.O.**, Akinwande O.M., Igba U.T. (2019). "The use of PET pellets in cement stabilized compressed earth bricks." **Advances in Engineering Materials, Structures and Systems: Innovations, Mechanics and Applications**, pp. 1631-1635. (Ed). Alphonse Zingoni, Published by Taylor & Francis Group, London, United Kingdom. ISBN 978-1-138-38696-9.

(46) **Akinyele J.O.** Ogwumeh C.M., Igba U.T. (2019). "Flexural behavior of concrete beams with PET reinforcement." **Advances in Engineering Materials, Structures and Systems: Innovations, Mechanics and Applications**, pp. 1371-1376. (Ed). Alphonse Zingoni, Published by Taylor & Francis Group, London, United Kingdom. ISBN 978-1-138-38696-9.

(47) **Akinyele J.O.** (2013). "Effect of Temperature on the behaviour of polymer reinforced concrete façade." **Research and Application in Structural Engineering, Mechanics and Computation**, pp. 1599-1602. (Ed). Alphonse Zingoni, Published by (CRC press) Taylor & Francis Group, London, United Kingdom. ISBN 978-1-138-00061-2.

(48) **Akinyele, J.O.** (2010). "Computer application of Yield line theory in the analysis of solid Slabs". **Advances and Trends in Structural Engineering, Mechanics and computation**. pp 827-830. (Ed.) Alphonse Zingoni. Published by (CRC press) Taylor & Francis Group London, United Kingdom. ISBN 978-0-415-58472-2.

Conference Proceedings

(49) **Akinyele J.O.**, Igba U.T., and Labiran J.O., (2023). Durability Problems of Reinforced Concrete Structures on the Lagos Lagoon. **The 77th RILEM week and the 1st Interdisciplinary Symposium on Smart and Sustainable Infrastructures**. Sept. 4-8, Vancouver Canada. (Ed). N. Banthia.

(50) Igba U.T., **Akinyele J.O.**, Ehikhuenmen S.O., Oyebisi S.O., Omotainse P.O., Anyanwu B.U. (2019). "A Comparative Study on the Strength Characteristics of Grade 25 and Grade 30 Rice Husk Ash Blend cement Concrete." **First International Conference on Sustainable Infrastructural Development. IOP Conf. Series: Material Science and Engineering.** 640. (012041). Doi:10.1088/1757-899X/640/1/012041.

(51) Igba U.T., Ehikhuenmen S.O., **Akinyele J.O.**, Osaghale M.O. Oyebisi S.O. (2019). "The effect of partial replacement of Nigerian Portland Limestone cement with Rice Husk Ash Agricultural waste in Concrete." **First International Conference on Sustainable Infrastructural Development. IOP Conf. Series: Material Science and Engineering.** 640. (012041). Doi:10.1088/1757-899X/640/1/012041.

(52) **Akinyele, J.O.**, Salim, R.W, Oikelome, K.O, and Olateju, O.T. (2015). "The Use of Rice Husk Ash as Stabilizing agent in Lateritic clay soil". **The 17th International Conference on Civil and Building Engineering (ICCBE 2015)**, Cape Town, **South Africa**. Nov. 5-6.

(53). **Akinyele, J.O** and Abdulraheem, W. (2014). "Effect of Palm Fruit Fibre on the Compressive Strength of Lateritic Bricks at Different Curing Ages." **Proceedings of the 18th AES-ATEMA International Conference.** Toronto, **Canada**. August 11-15th, 2014. (Ed) Y. Haddad, Index by Elsevier.

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(55) **Akinyele, J.O.** and Olatomide, B.O. (2012). "Effective Utilization of Waste Polyethylene Sachets as Reinforcement in Concrete Façade". **Proceedings of the 11th AES-ATEMA International Conference.** Toronto, Canada. August 06-10th, 2012. (Ed) Y. Haddad.

(56) **Akinyele, J.O.** (2012). "Potential Design and Construction Errors Associated with a Selected Number of Building Failures in Some Nigerian Cities: An Exploratory Evaluation". **Proceedings of the 1st International Conference on Infrastructures Development in Africa, (ICIDA 2012).** Kwame Nkrumah University of Science and Technology, Kumasi, **Ghana**. (Ed) Edward Badu. March 22-24th, 2012.