

## 1. Publications:

### a. Thesis / Dissertation

- i. Ph. D Thesis: Engineering Applications for Management of Wastes from General and Specialist Hospitals in Ibadan, Nigeria (University of Ibadan) (2002)
- ii. MSc Dissertation: The Effects of High Velocity Gradients in Water Coagulation (Obafemi Awolowo University, Ile-Ife) (1991)

### b. Publications Indexing

- i. Google Scholar: <https://scholar.google.com/citations?user=vcstopsAAAAJ&hl=en> h-index-18; citations-1653; i10-index-34
- ii. ResearchGate: <https://www.researchgate.net/profile/Akinwale-Coker> ; citation-877
- iii. Scopus: <https://www.scopus.com/authid/detail.uri?authorId=8652384600> ; h-index-9; citation-334
- iv. Orcid: <https://orcid.org/0000-0002-2065-7179>

### c. Books

1. Mynepalli Sridhar, Taiwo B. Hammed and **Akinwale Coker** (2026). “Biogas and Bio methanation” ISBN 978 - 978 - 59606 - 2 - 4 (**in press**). Accepted by TETFUND Board in January 2026 for publication.
2. Mynepalli Sridhar, **Akinwale Coker** and Olalekan Shittu (2020). Rain - A resource untapped. Published by Ecosolutions Limited, Ibadan, Nigeria, ISBN 978-978-57437-5-3, pp. 1 - 413.
3. Mynepalli Sridhar, Mumuni Adejumo, Taiwo Hammed and **Akinwale Coker** (2020). COVID-19 Pandemic & Other Viral Infections: A Guide for Prevention, Control and Coping Strategies in West Africa, Publisher SR&H Ecosolutions Ltd, Ibadan, Nigeria, ISBN 978-978-58234-5-5, pp. 1–604.
4. Sridhar, M.K.C., **Coker, A.O.**, Adeoye, G.O., and Aikhomu, E.S. (2009): “Biogas Technology for Nigerian Communities”, Skill Books Concept, Abeokuta, Nigeria, ISBN: 978-978-906-729-9, pp. 1 – 110.

### d. Contribution to Books

5. Olufunmi O. Sode, Chibueze G. Achi, Mynepalli K. C. Sridhar, **Akinwale O. Coker** and Hammed B. Taiwo (2023). “Engineering and Technology Deployment in Nigerian Industry and Environmental Protection, In the Nigerian Environment: Past 100 Years and the Future (Chapter 21). David Okali, Mynepalli Sridhar, Chris Ikporukpo, Editors. Published by Crux of Africa Ltd. ISBN: 978-978-981-057-4, Page 309-322.
6. Sridhar, M. K. C., **Coker, A. O.**, Shittu, O. I., Laniyan, T. A. and Achi, C. G. (2020), “Phytotechnologies in wastewater treatment: A low-cost option for developing countries”. In S. Charlesworth, C. A. Booth & K. Adeyeye (Ed.) Sustainable Water Engineering (Chapter 9), Elsevier Inc. 137-164.

7. **A.O. Coker**, F. O. Akintayo, C. G. Achi, M. A. Odeniyi, A. O. Olorunnisola, D. Akano. (2019). "Recent Developments in Biomedical Engineering Education in Africa: A Focus on Nigeria and the University of Ibadan", In *Biomedical Engineering for Africa*. T. S. Douglas, Ed. Cape Town: University of Cape Town Libraries, pp. 11–17. <http://dx.doi.org/10.15641/0-7992-2544-0>
8. Saidi, O.O.E. Ajibola, A. Desmennu, B.R. Ojebuyi, O.A. Oladapo, O. Tade, C.G. Achi, O.J. Balogun, S.C. Nwaneri, A.I. Aiyegbusi, D.C. Umesi, A.B. James, **A.O. Coker**, C.J Achenbach (2019). "Problem Identification and Needs Assessment for Healthcare Technologies", In *Biomedical Engineering for Africa*. T. S. Douglas, Ed. Cape Town: University of Cape Town Libraries, pp. 41-45. DOI: <http://dx.doi.org/10.15641/0-7992-2544-0>
9. T. Saidi, A.A. Dare, S.K. Fasogbon, O. Ewemoje, O. Anyaeche, M. Bolarinwa, O. Adetoyi, K. Adewole, O. Lawal, A.O. **Coker** (2019). "Materials for Medical Devices", In *Biomedical Engineering for Africa*. T. S. Douglas, Ed. Cape Town: University of Cape Town Libraries, pp. 55-61.
10. **A.O. Coker**, T.A. Lawal, C.G. Achi, D. Akano, A.O. Olorunnisola, L. Clienti, Y. Lee, J. Simkowski, F. Cummins, M.D. Doerfler, E. Glowik, R.C.C. Lu, A. Williams, M. Zeitz-Chua, I. Ikene, S. Das, D.W. Gatchell, M.R. Glucksberg, R.L. Murphy (2019). "Infant Warming Device for Neonatal Surgery in a Low-Resource Settings", In *Biomedical Engineering for Africa*. T. S. Douglas, Ed. Cape Town: University of Cape Town Libraries, pp. 103-110. DOI: <http://dx.doi.org/10.15641/0-7992-2544-0>
11. G. Beukes, C.G. Achi, B. Bolasodun, A. Desmennu, A. Oloyo, O. Oyebola, O. Oyewola, T. Saidi, A.O. **Coker**, S. Sivarasu (2019) Needle Disposal Device for Use in Low-Resource Settings. In *Biomedical Engineering for Africa*. Douglas, T.S. Ed. 2019. Cape Town: University of Cape Town Libraries. 111–123. DOI: <http://dx.doi.org/10.15641/0-7992-2544-0>
12. O.A. Adejumobi , C.J. Diji, M.K.C. Sridhar, **A.O. Coker**, N. Idusuyi, C.G. Achi, O.O. Omotosho, T.O. Omobowale, A.O. Olorunnisola (2019) A Prototype Metabolic Cage for Rats and Mice for Biomedical Research in Nigeria. In *Biomedical Engineering for Africa*. Douglas, T.S. Ed. 2019. Biomedical Engineering for Africa. Cape Town: University of Cape Town Libraries. 140–145. DOI: <http://dx.doi.org/10.15641/0-7992-2544-0>
13. Akinwumi, I.I.; Booth, C.A.; Ojuri, O.O.; Ogbiye, A.S.; **Coker, A.O.** (2018) "Containment of Pollution from Urban Waste Disposal Sites". In S. Charlesworth & C. A. Booth (Ed.), *Urban Pollution: Science and Management* (Chapter 17). Wiley-Blackwell Publishing, 223-234.
14. **A.O. Coker**, M. K. C. Sridhar, A. E. Osilagun and, C. G. Achi (2016). "Waste Management Challenges at a Religious Congregation: A Study from the South-West of Nigeria". In *Contemporary Nigeria: Transitional Agencies of Change*. Ed. Sati U. Fwatshak, Africa World Press, Inc. Trenton, New Jersey, USA Chapter 14, Page 183 -194.

15. **Coker, A.O.**, Sridhar, M.K.C., Okareh, O.T. and Coker, M.E. (2015), “Controlling Exposure to Biological Hazards” In: C. McAleenan and D. Oloke (Ed.) Institute of Civil Engineers Manual of Health and Safety in Construction, Thomas Telford Ltd., London, U.K. 2nd Edition (ISBN: 978-0-7277-6010-4), page 145-162.
16. M. K. C. Sridhar and **A. O. Coker** (2015) Alum Recycling from Water Treatment Plants. In Entrepreneurship in Waste Recycling. Eds. Sridhar, M. K. C., Hammed T. B. and Okoye A. Book Builders, page 333-335.
17. Oloruntoba, E. O., **Coker, A. O.**, Olowookere, A. O. and Sridhar, M. K. C. (2011). “Gender Dimension of Household Solid Waste Management: A Comparative Study of Two Cities in Southwestern Nigeria”. In Beyond Tradition, African Women and Cultural Spaces, Eds, Toyin Falola and S. U. Fwatshak, Chapter 21, Africa World Press, Inc. Trenton, New Jersey, USA, ISBN: 1-59221-847-4, Pages 283-300.
18. Sridhar, M.K.C. and **Coker, A.O.** (2009), “Treatment and Disposal of Healthcare Wastes” In: Healthcare Waste Management – A Handbook for Developing Countries, Ibadan University Press, Ibadan, Nigeria, ISBN: 978-978-8414-01-8, page 91-117.
19. **Coker, A.O.** and Olutoge, F.A. (2006), “Combating the Guinea worm Scourge in Nigeria: An Engineering approach” in: Traditional and Modern Health Systems in Nigeria, Africa World Press, Inc. Trenton, NJ, USA, ISBN: 1 – 59221 – 453-3, page 417-427.
20. Sangodoyin, A.Y. and **Coker, A.O.** (2002), “Environment and Waste Management in Nigeria: A Review” in: Agricultural Engineering in Nigeria: 30 years of University of Ibadan Experience, Aluelemhegbe Publishers.

#### e. Patents

- i. Fadare D., Achi C., Abu R., Ajuka L., Idowu O., **Coker A.O.**, Dare A., Adeleye A., Oke O., Akinremi T., Lana A., Morenikeji E., Casserly P., Maiga M., Murphy R (2024). A low-cost, non-contact, adaptable handwashing device for low-income communities. Patent No: RP. F/PT/NC/2024/11732; Date of Patent: 04/04/2024; Date of Sealing: 19/04/2024.
- ii. Idowu O., Achi C., Adeleye A., Abu R., Ajuka L., Dare A., **Coker A.O.**, Fadare D., Lana A., Akinremi T., Oke O., Ayoola M., Casserly P., Glucksberg M., Murphy R. (2024) A Limited Contact Patient-Posture Change Mechanism for Efficient Management of Covid-19 Patients. Patent No: RP. F/PT/NC/2024/11733; Date of Patent: 04/04/2024; Date of Sealing: 19/04/2024.
- iii. Adeniyi, A. O., Sridhar, M. K. C., Hammed, T. B. and **Coker, A. O.** (2021). “A Household Ultra-Violet Water Treatment Unit, Incorporating Biochar-Sand Medium for Purification”. Patented in Federal Republic of Nigeria (Patent No.:NGPT/NC/2021/5188).
- iv. **Coker A. O.**, Achi C., Beukes G., Bolasodun B., Desmennu A., Oloyo A., Oyebola O., Oyewola O., Saidi T. and Sivarasu S. (2021) “A Portable Device

- for Crushing Used Syringe”. Patented in Federal Republic of Nigeria (Patent No.: NG/PT/NC/2021/5510).
- v. Akintunde, C., Sridhar, M. K. C., **Coker, A. O.** and Hammed, T.B. 2018. Needles and sharps crusher for resource recovery and hygienic disposal of biomedical waste. Patented in the Federal Republic of Nigeria (Nigerian Patent No. NG/PT/NC/2017/ 2277).
  - vi. Mynepalli K.C. Sridhar, Adedayo A. Badejo, **Akinwale O. Coker** and Okunromade Olumade Noah (2013). “Reedbed, Rootzone or Constructed Wetlands Technology to treat Domestic Wastewater, Septic Tank Effluent and Industrial Wastewaters”. Patented in Federal Republic of Nigeria (Patent No.:NGPT/NC/2013/36).
  - vii. Sridhar, M. K. C., **Coker, A. O.**, Adeoye, G. O. and Aikhomu, A. S.(2005). “Household Biogas Digester”. Patented in Federal Republic of Nigeria (Patent RP: 16174).

#### f. Journal Articles

1. Ajaelu C.S., Achi C.G., Idowu O.K., Coker M.E., Lawanson A.O., **Coker A.O.**, Ijomah W.L. Barriers, motivators and guidelines for remanufacturing of medical equipment to improve healthcare services in Nigeria: qualitative approach. *Journal of Reman.* (2026). <https://doi.org/10.1007/s13243-025-00159-6>
2. Akinlabi, P., Adepoju, T., Achi, C., & **Coker, A.O.** (2025). Odour, Colour and Turbidity Removal from Selected Industrial Wastewater Using Electrocoagulation Process. *Science, Engineering and Technology*, 5(1). <https://doi.org/10.54327/set2025/v5.i1.153>
3. Achi, C. G., Ariyo, O. F., **Coker, A. O.**, Abbey, S. J., Agyekum, K., Booth, C. A., & Horry, R. E. (2025). A Sustainable Water Management Framework for Schools in Sub-Saharan Africa. *Green Health*, 1(2), 8. <https://doi.org/10.3390/greenhealth1020008>
4. Lawal, I. A., Achi, C. G., & **Coker, A. O.** (2024). Assessment of Refuse Dumpsite Impact on Groundwater Quality: A Case Study from Awotan, Ibadan, Oyo State, Nigeria. *Science, Engineering and Technology*, 5(1). <https://doi.org/10.54327/set2025/v5.i1.161>
5. Oluwadare Joshua Oyebode, **Akinwale Oladotun Coker**, Elizabeth Omoladun Oloruntoaba and Josiah Oladele Babalola (2024). “Assessment of Wastewater from Different Point sources in Nigerian University using Water Quality Index”, *Journal of Harbin Engineering University*, volume 45 (1), 217-230.
6. O. J. Oyebode, C. C. Okpala, S. M. Ajibade, N. M. Ogarekpe, S. A. Afolalu, **A. O. Coker**, S. G. Udeagbara and A. T. Adeniyi (2023). “Comparative Assessment of Medical Waste Management in Multi-System and Selected

- Teaching Hospitals in Ekiti State, Nigeria,” *Nature Environment and Pollution Technology*, Vol. 22, No.2, 653 – 669.
7. C. V. Amacchi, E. C. Amacchi, S. C. Amacchi, A. K. Oyetunji, I. M. Kgoisemang, O. J. Mgbeoji, A. S. Ojo, A. M. Abelenda, M. Milad, I. Adelusi and **A. O. Coker** (2022). “Management of Biohazards and Pandemics: COVID-19 and its Implications in the Construction Sector”, *Computational Water, Energy and Environmental Engineering*, Vol.11, No. 1, page 34 – 64.
  8. O. J. Oyebode, **A. O. Coker**, M. K. C. Sridhar, and N. M. Ogarekpe (2022). “Biomedical Waste Management Practices in Sub-Saharan Africa: Insights of Its Impacts and Strategies for Its Mitigation”, *Advanced Manufacturing in Biological, Petroleum, and Nanotechnology Processing; Green Energy and Technology*, 249 – 256.
  9. O. J. Oyebode, A. T. Adeniyi, U. S. Gekwu, K. O. Olowe, **A. O. Coker** (2022), “Development of Energy Efficient Processes and Products from Renewable and Nonrenewable Resources in Nigeria”, in *Advanced Manufacturing in Biological, Petroleum, and Nanotechnology Processing, Green Energy and Technology*, Springer Nature Switzerland AG, pp. 17–?, DOI: 10.1007/978-3-030-95820-6\_2.
  10. O. J. Oyebode and **A. O. Coker** (2021). *Management of Infrastructure in Water Sector: A Veritable Tool for Healthcare and Sustainable Development in Nigeria*. IOP Publishing Limited, Materials Science Engineering, 1036, 1-10.
  11. Achi, C. G., Omoniyi, A.M., and **Coker, A. O.** (2021). “Distribution of Selected Heavy Metals in Water and Sediment Phases in Ogbere River, South-West Nigeria.” *Journal of Environmental Protection (JEP)*, Vol.12, No.7, pages 429 - 437.
  12. *Infrastructure in Water Sector: A Veritable Tool for Healthcare and Sustainable Development in Nigeria*. IOP Publishing Limited, Materials Science Engineering, 1036, 1-10.
  13. Achi, C.G., Omoniyi, A.M., and **Coker, A. O.** (2021), “Distribution of Selected Heavy Metals in Water and Sediment Phases in Ogbere River, South-West Nigeria.” *Journal of Environmental Protection (JEP)*, Vol.12, No.7, pages 429 - 437.
  14. C. G. Achi, A. M. Omoniyi, **A. O. Coker**, M. K. C. Sridhar (2021). “Multivariate Analysis of Sediment Quality in River Ogbere, Ibadan, South-West Nigeria.” *H-Open Journal*, Vol. 4, No 1, Pp 1 - 11, DOI: 10.2166/h2oj.2021.057.
  15. Nyirajana J., Akintayo F. O., **Coker A. O.** (2021), “Traffic Flow Rate on Kigali Roads: A Case of National Roads (RN1 and RN3)”, *East African Journal Of Science, Technology and Innovation*, Vol. 2(3), E-ISSN: 2707-0425.

16. EO Ige, AA Dare, **A. O. Coker**, CO Akintayo. (2021), "Controlled magnetic field influence for reperfusion in aortic blood flow using a unified solution approach" *International Journal of Medical Engineering and Informatics*, 13 (5), 419-431.
17. E. O. Ige, A. A. Dare, K. A. Adeniyi, **A. O. Coker**, R. L. Murphy, M. Glucksberg and D. Gatchell (2021), "Suitability of Hood Geometry for Design of a PCM Neonate Incubator for Resource-Limited Clinical Applications." *Journal of Medical Systems*; Vol. 45, Issue 3, Page 32-37, DOI: 10.1007/s10916-021-01716-9, PMID: 33534025.
18. Osikanmi, B.O., Mustapha, M., Sridhar, M.K.C. and **Coker, A.O.** (2020), "Hazard Identification and Risk Assessment-Based Water Safety Plan for Packaged Water Production Companies in Abeokuta, Southwest Nigeria." *Journal of Environmental Protection*, Vol. 11, No. 1, pp. 48-63. <https://doi.org/10.4236/jep.2020.111005>.
19. Oguntade, O. A., Sridhar, M. K. C., **Coker, A. O.** and Oyelekan, J. F. (2019). "Assessment of sanitary conditions and landscape design of Alagbafo natural spring, Kube-Atenda community, Ibadan." *World Journal of Engineering Research and Technology*, Vol. 5, Issue 3, pp. 115-132.
20. Abdullahi Adedotun, M. K. C. Sridhar and **A. O. Coker**, (2019), "Improving Municipal Solid Waste Collection System through A GIS Analytical Distribution and Optimization Mapping of Location Specific Waste Bins – A Study in Ibadan Metropolis, Nigeria." *The Journal of Solid Waste Technology and Management, USA*, Vol. 45, pp. 360-371.
21. Mohammed Mustapha, M. K. C. Sridhar, **A. O. Coker** and Ayotunde Ajayi, Abubakar Suleiman, (2019), "Risk Assessment from Catchment to Consumers as Framed in Water Safety Plans: A Study from Maiduguri Water Treatment Plant, Northeast Nigeria." *Journal of Environmental Protection*, Vol. 10, pp. 1373-1390.
22. A.C. Ajibola, F. O. Sanni, T. V. Ajibola, Jolaoso I, Akagwu O., **A. O. Coker** (2019), "Knowledge, Perception, and Attitudes of Clients and Health Service Providers in Family Planning and HIV Clinics in Healthcare Facilities in Abuja, Nigeria", *International Journal of Research and Scientific Innovation (IJRSI)*, Volume VI, Issue VIII, August 2019, ISSN 2321-2705, pp. 10-16.
23. A.C. Ajibola, F. O. Sanni, T. V. Ajibola, Jolaoso I, Akagwu O., **A. O. Coker** (2019), "Integration of Family Planning Services into Treatment Services in Healthcare Facilities in Abuja, Nigeria", *IOSR Journal of Nursing and Health Science*, Volume VIII, Issue IV, pp. 22-27, ISSN 2329-1940, e-ISSN 2320-1959.
24. Tejumola Adesoye, Myepalli Kameswara Chandra Sridhar, **Akinwale Oladotun Coker**, Mumuni Adejumo (2019), "Landscaping of Residential Estates as a Mitigation Measure to Reduce Carbon Dioxide and Temperature Levels in Inner Ibadan City, Nigeria", *International Journal*

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26. Sridhar M.K.C., **Coker A.O.** and Achi C. (2018), "Pollution from Small and Medium Size Enterprises: Less Understood and Neglected Sources in Nigerian Environment." *Journal of Environmental & Analytical Toxicology*. DOI: 10.4172/2161-0525.1000558, ISSN: 2161-0525.
27. Abdul-Majeed Mahamadu, Patrick Manu, Colin Booth, Paul Olomolaiye, **Akinwale Coker**, Ahmed Ibrahim, Jessica Lamond, (2018), "Infrastructure procurement skills gap amongst procurement personnel in Nigeria's public sector", *Journal of Engineering, Design and Technology*, Vol. 16, Issue: 1, pp.2-24, ISSN 1726-0531.
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31. **A. O. Coker (2018)**. *Environmental Health Engineering: Cornerstone of the Builders for Advancing Human Well-being: an Inaugural Lecture Delivered at the University of Ibadan on Thursday, 21 June 2018*. Ibadan University Press.
32. **Akinwale Coker (2018)**, "Negative impacts of waste on human health and environment in Nigeria's urban areas: Innovative solutions to the rescue." *Global Health Innovation*, 1(2), 1-3. DOI: 10.15641/ghi.v1i2.689.
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37. Oluwadamisi, E. A, Sridhar M. K. C, **Coker A. O.**, Jacob, S. O. (2017), “Septage Purification and Nutrient Uptake Potential of Water Hyacinth (*Eichhornia crassipes*) in a Batch System.” *International Journal of Engineering Research and Management (IJERM)*, Europe, ISSN: 2349–2058, Volume – 04, Issue - 02, February 2017, pp. 49-56.
38. O.O. Elemile, M.K.C. Sridhar, **A.O. Coker** (2017), “Diurnal and Seasonal Variations in Carbon Dioxide Emissions in a Solid Waste Management Facility, Akure, Nigeria”, *World Journal of Research and Review*, ISSN: 2455-3956, Volume 4, Issue 3, March 2017, Pages 54-60.
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45. O.I. Shittu, OT Okareh, **A. O. Coker** – (2015), “Development of rainwater harvesting technology for securing domestic water supply in Ibadan,

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6. **A. O. Coker (2020)** Fundable grant proposals in the area of Civil Engineering Workshop, organised by UK-based Royal Academy of Engineering and partnering universities on the SAICE-AFRICA Project. Virtual Workshop on Academia-Industry collaboration in teaching and research in Civil Engineering which held on 9 - 11, November 2020.
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