

Engr. Dr. Olanrewaju Moses Adesusi

Igbinedion University Okada, Edo State, Nigeria
General Abdulsalami A. Abubakar College of Engineering
Department of Mechanical Engineering
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Professional Summary

An experienced lecturer with over 2 years of teaching, mentoring and research in corrosion and, materials engineering, metallurgy and mechanics of materials. Proven ability to make complex concept easily understandable, clear presentation and speaking style. ability to initiate research solutions to problems that impacts academics, professionals and society.

Education

PhD, Federal University of Agriculture, Abeokuta, Nigeria, 2015-2021

MEng, Federal University of Agriculture, Abeokuta, Nigeria, 2011-2015

PGD, Federal University of Technology, Akure, Nigeria, 2007-2011

HND, Federal Polytechnic, Ado-Ekiti, Nigeria, 2004-2006

ND, Federal Polytechnic, Ado-Ekiti, Nigeria, 2001-2002

Experience

Lecturer I 2023-to-date, Igbinedion University Okada: Departmental Board Secretary, 2023-to-date; Undergraduate Course Advisor, 2024-to-date; Project supervisor, 2024-to-date; Departmental Postgraduate (PG) programmes coordinator, 2024-to-date.

- Prepared and circulated departmental notice of meeting.
- Took minutes during board meetings and prepared same for presentation at next board meeting.
- Developed causes for the 30% CCMAS institutional addition.
- Coordinated undergraduate students course registration.
- Taught undergraduate students in the college and department of mechanical engineering.
- Prepared examination questions and marking guides.
- Prepared undergraduate students results.

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- Supervised final year students' projects.
- Developed PG lectures and examination timetables, and prepared PG results.
- Coordinated departmental PG seminar presentation.

Undergraduate Teaching

i. Current

GET 102: Engineering Graphics and Solid Modeling
GET 202: Engineering Materials
IUO-MEE 202 Introduction to Energy Materials
IUO-MEE 371 Introduction to Emerging Engineering Materials
ENS 411: Technology Policy and Development
MEE 431: Strength of Materials III
MEE 541: Engineering Metallurgy II

ii. Previous

MEE 242: Materials Science
MEE 512: Engineering Materials Selection and Failure Analysis
MEE 341: Engineering Metallurgy

Postgraduate Teaching

MEE 8: Materials Science

Project Supervision

i. Ongoing

BEng

- Development of Bioplastic by Enriching the Cellulose Content of Cassava Starch

PGD

- The Effect of Quench Severity on Steel in a Step Quench Process

ii. Completed

BEng

- Effect of Cyclic-Step-Quenching on The Mechanical and Corrosion behavior of Micro-Alloyed Steel
- Development of Bioplastic Composite from Cassava Starch Granule with Iron-Oxides as Reinforcement

Publications

1. Musa, A.I., Musa, A.I. and **Adesusi, O.M.** (In Review) Antropometric Modeling of Sitting Shoulder Height, Sitting Knee Height, Popliteal Height and Standing Height of Youngsters in Abeokuta Southwestern Nigeria. *Applied Ergonomics*.

2. Musa, A.I., Kingsley-Omoyibo, Q.A., **Adesusi, O.M.** and Musa, A.I. (In Review) Optimizing Ergonomic Design through Antropometric Modeling of Seated and Standing Postures. *Journal of Applied Research and Technology*.
3. Gbadamosi-Olatunde, O.B., Adetifa, B.O., Adetunji, O.R., **Adesusi, O.M.**, Babalola, A.A., Giwa, S.O, Aasa, S.A., Shote, A.S. and Adeyemi, H.O. (In Review) Effectiveness of Air Filters and Air Filtering Technologies for Nano-Sized Air Pollutants amidst COVID-19 Pandemic: An Overview. *International Journal of Environmental Science and Technology*.
4. **Adesusi, O.M.**, Leong, W.Y., Adetunji, O.R., Musa, A.I., Iburu, F.K. and Shokefun, M.O. (2025) Cyclic-Step Quenching of Micro-Alloyed Steel for Enhancing Mechanical Properties: A Novel Heat Treatment Process Implementation. *Materials Research Express*. doi.org/10.1088/2053-1591/ae1355
5. Musa, A.I., Adeyemi, O.O., **Adesusi, O.M.** and Musa, A.I. (2025) Mechanistic Modeling and Engineering Evaluation of Bicycle Suspension Systems. *Technical Journal UET Taxila* 30(3): 33-41.
6. Oguama, A.N., Azike, R.U., Raji, W.A., **Adesusi, O.M.** and Yerima, Y. (2025) Gravimetric Performance Evaluation of Wood Vinegar Liquor and Wood Vinegar Liquor Nano-fluid Corrosion Inhibitors. *Direct Research Journal of Engineering and Information Technology* 13(3): 21-28.
7. Adeboye, T.Q., Wai, Y.L., Adetunji, O.R., Kuye, S.I., Adeogun, A.I. Akinpelu, O.O. and **Adesusi, O.M.** (2025) Evaluating the Corrosion Rates of Mild Steel, Stainless Steel, Aluminium and Copper in Sodium Silicate at Varying Temperature. *Canadian Metallurgical Quarterly*. doi.org/10.1080/00084433.2025.2501893
8. Musa, A.I., Ibrahim, R.T., **Adesusi, O.M.** and Musa, A.I. (2024) Research and Development of a Low-Cost Prototype Medical Delivery Device: A Case Study on the Insulin Pen. *Acta Technica Corviniensis* 17(4): 95-100.
9. **Adesusi, O.M.**, Adetunji, O.R., Musa, A.I., Kingsley-Omoyibo, Q.A., Yussouff, A.A., Adeleke, A.I. and Quadri, T.A. (2024) Investigating the Effects of Vegetable Oil-Based Cutting Fluids with Minimum Quantity Lubrication on Machining Performance of Low-Alloyed Carbon Steels: An Optimization Study. *International Journal on Interactive Design and Manufacturing*. doi.org/10.1007/s12008-024-01908-w
10. Musa, A.I., Ihe, G., Musa, A.I. and **Adesusi, O.M.** (2024) Ergonomic Assessment and Improvement of Tricycle Rider's Seat. *FUW Trends in Science and Technology Journal* 9(1): 1-6.
11. Musa, A.I., Kingsley-Omoyibo, Q.A., **Adesusi, O.M.** and Musa, A.I. (2023) Application of Concurrent Triangulation for Evaluating and Strengthening the Manufacturing

- Sector's Impact on Economic Growth and Success. *Uniport Journal of Engineering and Scientific Research* 7(2): 99-107.
12. Adetunji, O.R., Olanipekun, A.O., **Adesusi, O.M.** and Kingsley-Omoyibo, Q.A. (2023) Production of Auto Connecting Rod from Scrapped Steel and Palm Kernel Shell. *ASRIC Journal of Agricultural Science* 4(1): 256-261.
 13. Adetunji, O.R., Sokunbi, I.O., Kuye, S.I., **Adesusi, O.M.** and Okediran, I.K. (2023) Condition-Based Monitoring of Kiln Induced Draft Fan in a Dry Process Cement Plant for Efficient Utilization. *Journal of Advanced Industrial Technology and Application* 4(1): 56-64.
 14. Okediran, I.K., Adetunji, O.R., Adeboye, B.S., Adefajo, A.A. and **Adesusi, O.M.** (2023) Effect of Heat Loss on the Working Index of Electric Arc Furnace (EAF). *Borobudur Engineering Review* 3(1): 12-24.
 15. **Adesusi, O.M.**, Adetunji, O.R., Kuye, S.I., Musa, A.I., Erinle, T.J., Gbadamosi-Olatunde, O.B. and Ipadeola, S.O. (2023) A Comprehensive Review of the Materials Degradation Phenomena in Solid-Liquid Phase Change Materials for Thermal Energy Storage. *International Journal of Thermofluids* 18. doi.org.10.1016/j.ijft.2023.100360
 16. Adetunji, O.R., Adedayo, A.M., Ismaila, S.O., Dairo, O.U., Okediran, I.K. and **Adesusi, O.M.** (2022) Effect of Silica on the Mechanical Properties of Palm Kernel Shell Based Automotive Brake Pad. *Mechanical Engineering for Society and Industry* 2(1): 7-16.
 17. **Adesusi, O. M.**, Adetunji, O. R., Erinle, T. J., Okediran, I. K., Akinpelu, O. O. and Ipadeola, S. O. (2021) Free Fatty Acid Influenced Corrosion Inhibition Mechanisms of some Inedible Plants Seeds Oils on Low Alloyed Medium-Carbon Steel in H₂SO₄. *World Journal of Engineering*. <https://doi.org/10.1108/WJE-11-2020-0554>.
 18. Erinle, T.J., Akinola, A.O., **Adesusi, O.M.** and Agbamu, I.A. (2021) Experimental Evaluation of Air-Conditioning System. *Assumption University-eJournal of Interdisciplinary Research* 6(1): 17-29.
 19. Adetunji, O.R., Ashimolowo, R.A., Aiyedun, P.O., **Adesusi, O.M.**, Adeyemi, H.O. and Oloyede, O.R. (2020) Tensile, Hardness and Microstructural Properties of Sn-Pb Solder Alloys. *Materials Today: Proceedings*. doi.org/10.1016/j.matpr.2020.09.656
 20. **Adesusi, O. M.**, Adetunji, O.R., Ismaila, S.O., Dare, E.O., Erinle, T.J. and Akinpelu, O.O. (2020) Electrochemical Inhibitory Effects of Non-edible Vegetable Oils on Low-Alloyed Low Carbon Steel in H₂SO₄ Environment. *Journal of Failure Analysis and Prevention* 20(1): 159-172.
 21. Adetunji, O.R., Obakhavbaye, R.A., Ajileye, A.K., **Adesusi, O.M.**, Erinle, T.J., Ipadeola, S.O. and Adegbesan, O.O. (2019) Cathodic Protection of Underground Mild Steel Pipes by Impressed Current using Solar Cells as Rectifier. *Innovative Solutions in Engineering* 2(1): 12-20.

22. Adetunji, O.R., Akinbo, A.A., **Adesusi, O.M.** and Okediran, I.K. (2018) Effect of Carburizing and Nitriding on Mechanical Properties of Medium Carbon Steel. *Journal of Metallurgy and Materials Engineering* 11(1): 1-7.
23. Adetunji, O.R., Owolabi, S.M., **Adesusi, O.M.**, Dairo, O.U., Ipadeola, S.O. and Taiwo, S.O. (2018) Effect of Computerized Maintenance Management System on a Cement Production Plant. *International Journal of Integrated Engineering* 10(4): 12-16.
24. Adetunji, O.R., Nwankwo, O.K., **Adesusi, O.M.**, Adetunji, O.W. and Makinde, V.O. (2017). Inhibitive Efficiencies of Some Selected Liquid Hydrocarbons as Anti-Corrosives for Stainless and Mild Steel Samples in HCl. *Ochrona przed Korozjq* 60(10): 339-343.
25. Adetunji, O. R., Olukuade, L. M., Simka, W., Sowa, M., **Adesusi, O. M.** and Okediran, I. K. (2017) Production and Characterization of Amorphous Aluminum-Copper Alloy for Aerospace Applications. *European Journal of Engineering Research and Science* 2(2): 1-5.
26. **Adesusi, O.M.**, Adetunji, O.R., Adejuyigbe, S.B. and Ipadeola, S.O. (2016) A Multi-Objective Decision Analysis of Plants for Maintenance Expert System Development. *Application and Theory of Computer Technology* 1(1): 1-7.
27. **Adesusi, O.M.**, Adetunji, O.R., Adekoya, A.F., Adejuyigbe, S.B. and Ipadeola, S.O. (2015) A Knowledge-Based Expert System for Silicate Glass Plant Maintenance. *Journal of Natural Science, Engineering and Technology* 14(2): 116-125.
28. Erinle, T.J., Ukoba, O.K. and **Adesusi, O.M.** (2011) Evaluation of Plant and Machineries: A Case Study of PZ Nigeria. *Pacific Journal of Science and Technology* 12(2):54-62.

Referees

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