

## SECTION A

## PERSONAL DATA

1. NAME: **ADEDIRAN, ADEOLU ADESOJI**
2. DATE OF BIRTH: 18<sup>TH</sup> OCTOBER, 1982
3. TOWN: IBADAN
4. LOCAL GOVT. AREA: EGBEDA
5. STATE OF ORIGIN: OYO
6. NATIONALITY: NIGERIAN
7. MARITAL STATUS: MARRIED
8. NUMBER OF CHILDREN: 3
9. CONTACT ADDRESS: No.55, Opposite Akiije House, Council-Moniya Ibadan
10. RESIDENTIAL ADDRESS: 104, Aperan Way, Opposite High Court, Landmark University Road
11. TELEPHONE NUMBER: +2348032458545
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## SECTION B

## EDUCATIONAL HISTORY

### 1. INSTITUTIONS ATTENDED WITH DATES

The Federal Polytechnic Ado-Ekiti Ekiti- State	2001-2003
Federal University of Technology, Akure	2005-2009
University of Lagos, Akoka, Lagos State	2011-2012
Federal University of Technology, Akure	2014-2020

### 2. ACADEMIC QUALIFICATION

- i. Ph.D. Metallurgical and Materials Engineering (Advanced Materials Engineering Option)
- ii. M.Sc., Metallurgical and Materials Engineering
- iii. B.Eng., Metallurgical and Materials Engineering
- iv. O.N.D. Mechanical Engineering

### 3. TEACHING EXPERIENCE

- i. Academic Rank Held: Graduate Assistant University of Lagos 2011-2012
- ii. Academic Position: GA
- iii. Lecturer II: Landmark University, Omu-Aran 2014- 2017
- iv. Lecturer I: Landmark University, Omu-Aran 2017- 2021
- v. Senior Lecturer: Landmark University, Omu-Aran 2021 till date

#### 4. COURSES TAUGHT

- i. Extractive Metallurgy (MCE 435)
- ii. Materials Technology (MCE 434)
- iii. Computer Aided Drafting (GEC 222)
- iv. Metallurgy and Metal Fabrication (CHM 427)
- v. Metallurgy (MCE 329)
- vi. Manufacturing Technology 1 (MCE 313)
- vii. Physical Metallurgy (MCE 547)
- viii. Iron and Steel Metallurgy (MCE 539)
- ix. Composite Materials (MCE 546)
- x. Research Methodology and Individual Research Project (MCE 515)
- xi. Fracture Mechanics (MCE 533)
- xii. Material Design and Selection (MCE 838)
- xiii. Advanced Engineering materials (MCE 848)

#### 5. ADMINISTRATIVE EXPERIENCE AND SERVICE TO THE COMMUNITY WITH DATES

- i. President, Nigerian Christian Corpers Fellowship Bogoro Local Government Area, Bauchi State (2010– Oct. 2011).
- ii. Secretary, Disciplinary Committee, Community Day Secondary School, Gambar Zugum, Bogoro Local Government (2010 to Oct. 2011).
- iii. Member, Departmental Examination and Time Table Committee, Mechanical Engineering Department, Landmark University (Dec, 2014 - 2020)
- iv. Preparatory Class for Future Engineering Students and Scientist, Landmark Staff Secondary School (Feb., 2015)
- v. Member, Student Industrial Work Experience Scheme Committee, Mechanical Engineering Department, Landmark University, Omu-Aran, Kwara State, (Sep., 2015)
- vi. Member, Departmental Post- Graduate Review Committee of Curriculum for Post-Graduate Studies, (June 2015)
- vii. Member, Mechanical Engineering Departmental Welfare Committee, Landmark University, Omu-Aran, Kwara State (Nov. 2014 - 2020)
- viii. Member, Mechanical Engineering Departmental Facilities Monitoring Committee, Landmark University, Omu-Aran, Kwara State (Dec. 2015 - 2018)
- ix. Member, Mechanical Engineering Departmental Research Cluster Committee, Landmark University, Omu-Aran, Kwara State (June 2015 - 2019)
- x. Member, Design, Automation and Engineering Management Research Cluster, Landmark University, Omu-Aran, Kwara State (2016 - 2019)
- xi. Member, Environment and Technology Research Cluster, Landmark University, Omu-Aran, Kwara State (2016 - 2019)
- xii. Chair, Departmental Orientation and Excursion Committee (2016)
- xiii. Zonal Coordinator, Kwara State, Nigerian Metallurgical and Society (2016 - 2019)
- xiv. Chair, Departmental Examination and Time-Table Committee (2017/2018)

- xv. Member, L.O.C for The Nigerian Society of Engineers (NSE), Graduate Membership Induction Committee for Noble Set Class of 2017
- xvi. Desk Officer for Departmental Website Update (2017/2018)
- xvii. Member Committee on the Development of Landmark University Scholastic Screening Battery- LUSS BAT. (March 5-10, 2018)
- xviii. Assistant General Secretary, Nigerian Society of Engineers, Omu-Aran Branch, Kwara State
- xix. Member, Landmark University-Industry Linkage Committee 2020/2021
- xx. Member, Landmark University Operation Subscription By All Means (OSBAM) Session 2020/2021
- xxi. Coordinator, Landmark University International Office for Linkages and Grants Management, 2020/2021
- xxii. Director, Landmark University Centre for Research, Innovations and Discoveries (DLUCRID), till date.

#### 6. SCHOLARSHIP, FELLOWSHIPS, PRIZES, AND OUTSTANDING ACHIEVEMENT

- i. Graduate Assistantship Position, School of Post-Graduate Studies, University of Lagos (Oct. 2011-June 2012)
- ii. Research Fellowship to the Department of Mechanical Engineering Science, Faculty of Engineering and the Built Environment, University of Johannesburg (UJ), South Africa (May-Oct. 2018)
- iii. Top four Researcher in Landmark University by Scival (Elsevier) in 2020
- iv. Leading Researcher with the highest Scopus document in Landmark University, Omu-Aran, Kwara State for 2019 Research output by Scival (Elsevier)
- v. Enlisted among the top 500 Researchers in Nigeria by Scival (Elsevier) for 2019 and 2020 ranking.
- vi. Cogent Engineering Best Paper Award for 2020, Paper title: **Optimization and development of predictive models for the corrosion inhibition of mild steel in sulphuric acid by methyl-5-benzoyl-2-benzimidazole carbamate (mebendazole).**
- vii. Best Research Paper Award at International Conference on Applied Research and Engineering (ICARAE2021), 26-28 Nov. 2021, Cape Town, Western Cape, South Africa, Paper title: **Mechanical Characterization and Numerical Optimization of Aluminum Matrix Hybrid Composite.**

#### 7. TRAINING PROGRAMME ATTENDED

- i. 2-Day Workshop for “**Prospective NSE Corporate Members**” Organized by the Nigerian Society of Engineers, Ilorin Branch (18<sup>th</sup>-19<sup>th</sup> September 2015).
- ii. 3-Day Workshop for “**Mandatory Continuing Professional Education for Prospective Corporate Members**” Organized by the National Body of the Nigerian Society of Engineers, Headquarters, Ibadan Location (9<sup>th</sup>-11<sup>th</sup> September 2015)
- iii. 3-Day Workshop on “**Training for Laboratory Equipment Users**” Organized by Landmark University, Omu-Aran (22<sup>nd</sup> - 24<sup>th</sup> September 2015).

- iv. Resource Person: **A– Day Seminar on for Mechanical Engineering Students**, Landmark University, Omu-Aran, Kwara State (28<sup>th</sup> Sept. 2015)
- v. Training on **PowerPoint Presentation for Scholarly Dissemination**, Organized by Landmark University Centre for Learning Resources, Landmark University, Omu-Aran, Kwara State (16<sup>th</sup> Dec. 2015)
- vi. Training **on-online resources**, Organized by Landmark University Centre for Learning Resources, Landmark University, Omu-Aran, Kwara State (27<sup>th</sup> April 2017)
- vii. Public Lecture on **Engineering Infrastructural Development: A Leading way out of Economic Recession**, by The Nigerian Society of Engineers, Ilorin Branch (27<sup>th</sup> August 2017)
- viii. Elsevier’s **authors workshop**, Organized by Landmark University (21<sup>st</sup> Feb. 2018)
- ix. Springer Nature **Materials-Nanotechnology Workshop** Johannesburg, Organized by Springer Nature/University of Johannesburg, Doornfontein Campus, South Africa (11<sup>th</sup> May 2018)
- x. Training on “**The Use of Transmission Electron Microscopy**”, 3<sup>rd</sup> Floor, School of Chemistry, University of Johannesburg, APK Campus, Johannesburg, South Africa (May 30<sup>th</sup>, 2018).
- xi. One day Workshop on “**Research Funding Proposal Writing**”, Organized by School of Postgraduate, University of Johannesburg, APK Campus, held at Postgraduate School Seminar Room, First floor of Akanya Building, APK Campus, Johannesburg, South Africa. (June 01, 2018).
- xii. Two weeks Workshop on “**The Use of Scanning Electron Microscopy**”, 3<sup>rd</sup> Floor, School of Chemistry, University of Johannesburg, APK Campus, Johannesburg, South Africa (June 01-08, 2018).
- xiii. Training on “**The use of X-ray Diffraction**”, Institute for Nano-Engineering Research, Tshwane University of Technology, Staatsartillerie Road, Pretoria West, South Africa (June 13 - July 5, 2018).
- xiv. A week workshop on Finite Element Modelling by MSC Apex Technology Day Tech at ESTEQ Pretoria- Tijgervallei Office Park, Silverlakes Pretoria, Gauteng, South Africa (17-21 September 2018).

## 8. CONFERENCES ATTENDED WITH DATES

- i. The Nigerian Metallurgical Society- *Timely Completion of Nigerian Iron and Steel Projects: The Key to Rapid Industrialization*, Ajaokuta Steel Company Limited, (October 30<sup>th</sup> - 2<sup>nd</sup> November 2013)
- ii. Nigerian Metallurgical Society- *Building Local Capacities in the Nigerian Metals Industries*, Raw Materials Research and Development Council, Abuja (28<sup>th</sup>-31<sup>st</sup> October 2015)
- iii. National Engineering Conference of the Nigerian Society of Engineers- National Integrated Infrastructure Master Plan (NIIMP) 2014: Strategies for implementation, sunshine 2015 (16<sup>th</sup> – 20<sup>th</sup> November 2015)
- iv. Embracing the future: Improving the quality of Engineering Education and Practice in Nigeria, 25<sup>th</sup> Engineering Assembly (8<sup>th</sup> -10<sup>th</sup> August 2016)

- v. Annual Conference of School of Engineering and Engineering Technology, The Federal University of Technology, Akure, Innovative and Adaptive Technology for National Development, (11-13<sup>th</sup> July 2017)
- vi. The Nigerian Metallurgical Society- *Metal Production: A Panacea for National security and Economic Recovery*, Delta 2017, Petroleum Training Institute Conference Centre, (01- 04 November 2017)
- vii. Eighth International Conference on Advances in Civil, Structural and Mechanical Engineering, CSM 2019, Birmingham City University, Birmingham, United Kingdom, (23-24 April 2019).
- viii. Innovative and adaptive research in applied science and Engineering for Technology application- IARASETA 2019. Faculty of Engineering, Federal University of Technology, Akure, (26 - 27<sup>th</sup> August 2019).
- ix. 3<sup>rd</sup> International Conference on Engineering for Sustainable World (ICESW)- Department of Mechanical Engineering, Covenant University, Ota, Nigeria, (July 3-8, 2019).
- x. 11<sup>th</sup> International Conference on Materials Processing and Characterization, 15<sup>th</sup>-17<sup>th</sup> Dec, 2020 at IIT INDORE, India
- xi. ASME 2020 International Mechanical Engineering Congress and Exposition November 16–19, 2020.
- xii. 12<sup>th</sup> International Conference on Materials Processing and Characterization, 6<sup>th</sup> - 9<sup>th</sup> Oct, 2021 at NITTTR Chandigarh, India
- xiii. 1<sup>st</sup> International Conference on Applied Research and Engineering ICARAE2021, 26-28 November 2021, Cape Town, Western Cape, South Africa.

## 9. SELECTED CONFERENCE PAPERS PRESENTED

- i. O.O. Daramola, **A.A. Adediran** (2015): Investigating the Mechanical Response of Aluminium Matrix Hybrid Composites Reinforced with Silicon Carbide and Graphite, (NMS 2015-C028).
- ii. **A.A. Adediran**, O. Olawale, S.I. Talabi and O.Y. Busari. (2017). Inhibitive Potentials of Bitter Kola Stem (BKS) on Mild Steel in Acidic Media, Nigerian Metallurgical Society 33<sup>rd</sup> Annual Conference, pp. 136-142.
- iii. S.A. Akinlabi, O.S. Ogbonna, P.M. Mashinini, **A.A. Adediran**, O. S. Fatoba, E.T. Akinlabi (2019). Titanium and epoxy for Automobile application: A review, Proc. of the Eighth Intl Conf on Advances in Civil, Structural & Mechanical Engineering, CSM 2019, pp. 48-58. <https://doi.org/10.15224/978-1-63248-170-2-09>.
- iv. OS Fatoba, SA Akinlabi, ET Akinlabi, LC Naidoo, **AA Adediran**, OS Odebiyi (2020) Microstructural Enhancement and Performance of Additive Manufactured Titanium Alloy Grade 5 Composite Coatings, <https://doi.org/10.1115/IMECE2020-24125>.
- v. OS Fatoba, AM Lasisi, SA Akinlabi, ET Akinlabi, **AA Adediran** (2020) Influence of Process Parameters on the Microstructure, and Geometrical Characteristics of Laser Additive Manufactured (LAM) Titanium Alloy Composite Coatings, <https://doi.org/10.1115/IMECE2020-24105>.

10. SELECTED ONLINE ACADEMIC WORKSHOP/TRAINING BY ELSEVIER RESEARCHER ACADEMY

- i. Module on how to prepare your manuscript (9<sup>th</sup> August 2018)
- ii. Module on how to write an abstract and improve your article (9<sup>th</sup> August 2018)
- iii. Module on how to turn your thesis into an article (9<sup>th</sup> August 2018)
- iv. Module on why write a book? (9<sup>th</sup> August 2018)
- v. Module on plagiarism (10<sup>th</sup> August 2018)
- vi. Module on using proper manuscript language (10<sup>th</sup> August 2018)
- vii. Module on how researchers store, share, and use data (13<sup>th</sup> August 2018)

11. SELECTED ONLINE FACULTY DEVELOPMENT PROGRAMME

- ii. One week online Faculty Development Programme on Recent Advances in Materials Characterization. 21-27 May 2020 by the Department of Mechanical Engineering, GRIRT, India.
- iii. A five-day submit on African Private Sector Summit on Doing Business under the AfCFTA, SERIES 001: Africa Rising: Righting the Wrongs of Doing Business in Africa. March 8- 12, 2021. Virtual (Association of African Universities) <https://www.africaprivatesectorsummit.org/event/2a849062-0400-41c1-ab5e-66dc7f44328e/confirmation:a32dd357-726b-441e-8f28-6541bf251ade>

10. SELECTED PUBLICATION AND JOURNALS (INTERNATIONAL/LOCAL)

- i. **Adeolu Adesoji Adediran**, Abayomi Adewale Akinwande, Oluwatosin Abiodun Balogun, Olanrewaju Seun Adesina, Adeniyi Olayanju (2021). Experimental study on the mechanical behaviour of fired Sand-clay and glass powder-clay bricks. *ACTA METALLURGICA SLOVACA*, 2021, 27(1), 4-10
- ii. **Adeolu A. Adediran**, O.A. Balogun, A.A. Akinwande, F.M. Mwema, O.S. Adesina, A. Olayanju (2021). Effect of Surface Modification on the Properties of Polypropylene Matrix Reinforced with Coir Fiber and Yam Peel Particulate. *The Scientific World Journal*, Volume 2021, Article ID 8891563, 12 pages, <https://doi.org/10.1155/2021/8891563>
- iii. **Adeolu A. Adediran**, Abayomi A. Akinwande, Oluwatosin A. Balogun, Olanrewaju S. Adesina, Samuel J. Aliyu, Tunji J. Erinle, Joan Nyika, Adeniyi Olayanju (2021). Selected properties of waste wig, eggshell and waste paper hybrid composites as potential material for wall partitioning, <https://doi.org/10.1016/j.matpr.2020.12.1164>
- iv. **A.A. Adediran**, I.O. Oladele, T.F. Omotosho, O.S. Adesina, T.M.A. Olayanju, I.M. Fasemoyin (2021). Water absorption, flexural properties and morphological characterization of chicken feather fiber-wood sawdust hybrid reinforced waste paper-cement bio-composites. <https://doi.org/10.1016/j.matpr.2020.12.1166>.
- v. **Adeolu Adesoji Adediran**, Oluwatosin Abiodun Balogun, Abayomi Adewale Akinwande, Olanrewaju Seun Adesina, Bello Oladele Samson (2021). Influence of Waste Glass and Particulate Coconut Shells as Reinforcement Materials in the Production of Masonry Bricks. *Journal of Materials in Civil Engineering*, [https://doi.org/10.1061/\(ASCE\)MT.1943-5533.0003903](https://doi.org/10.1061/(ASCE)MT.1943-5533.0003903)
- vi. R.O. Akaluzia, F.O. Edoziuno, **A.A. Adediran**, B.U. Odoni, S. Edibo, T.M.A. Olayanju (2021). Evaluation of the effect of reinforcement particle sizes on the impact and hardness

- properties of hardwood charcoal particulate-polyester resin composites, *Materials Today: Proceedings*, 38 (2021) 570–577.
- vii. F.O. Edoziuno, **A.A. Adediran**, B.U. Odoni, C.C. Nwaeju, O.S. Adesina, M. Oki (2021). Influence of wormin mebendazole on the corrosion of mild steel in 1.0M sulphuric acid. *Results in Engineering*, 9, March 2021, 100192
- viii. Abayomi Adewale Akinwande, **Adeolu Adesoji Adediran**, Oluwatosin Abiodun Balogun, Olanrewaju Seun Adesina, Oluseyi Samuel Olasoju, Adebayo Felix Owa, Tunji John Erinle, Esther Titilayo Akinlabi (2021). Assessment of Alkaline Treatment of Palm Kernel Fiber and Curing Duration on Selected Properties of Cement-Paper Composite Boards. *Cogent Engineering*.
- ix. **Adeolu Adesoji Adediran**, Kenneth Kanayo Alaneme, Isiaka Oluwole Oladele, Esther Titilayo Akinlabi (2021). Microstructural characteristics and mechanical behaviour of aluminium matrix composites reinforced with Si-based refractory compounds derived from rice husk. *Cogent Engineering*. 8(1), 1-16, <https://doi.org/10.1080/23311916.2021.1897928>.
- x. **Adeolu A. Adediran**, Francis O. Edoziuno, Cynthia C. Nwaeju, Benjamin U.Odoni, Olanrewaju S. Adesina, Adeniyi Olayanju. Functional and morphological characterization of hybrid particulate reinforced polyester composites, *Materials Today: Proceedings* <https://doi.org/10.1016/j.matpr.2020.12.1160>
- xi. Oluwatosin Abiodun Balogun, Abayomi Adewale Akinwande, **Adeolu Adesoji Adediran**, Peter Pelumi Ikubanni, Samuel Akinyemi Shittu, Olanrewaju Seun Adesina (2021). Experimental Study on the Properties of Fired Sand–Clay Ceramic Products for Masonry Applications. *Journal of Materials in Civil Engineering*, 33 (2), 04020445
- xii. Adebayo Felix Owa, Isiaka Oluwole Oladele, **Adeolu Adesoji Adediran**, Joseph Ajibade Omotoyinbo (2021). Thevetia peruviana oil-based composites reinforced with short Sisal fibers: fabrication and properties. *Journal of Chemical Technology and Metallurgy*, 56(2), 2021, 289-295.
- xiii. Anuoluwapo Samuel Taiwo, Emmanuel Oseremen Egbodion, **Adeolu Adesoji Adediran**, Samuel Akinyemi Shittu, Samuel Olufemi Balogun, Olanrewaju Seun Adesina (2021). Mechanical properties and water-absorption characteristics of selected natural fibers as a replacement for asbestos. *Materials and Technology*, 55, 97-104
- xiv. CC Nwaeju, FO Edoziuno, **AA Adediran**, TJ Tuaweri, MS Kumar (2021). Grain characteristics and mechanical properties of as-cast Cu-10% Al alloy: Effects of alloying additions. *Results in Engineering*, 12, 100295
- xv. CE Njoku, IS Ike, **AA Adediran**, CC Nwaeju (2021). The Place of Biomass-Based Electrode Materials in Next-Generation Energy Conversion and Storage, *Electrode Materials for Energy Storage and Conversion*, 229-261
- xvi. Afolabi Ayodeji Ebenezer, Fatai Olufemi Aramide, **Adeolu Adesoji Adediran**, Abimbola Patricia Popoola (2021). Mechanical properties and phase evolutions in heat-treated cast Al-SiC-TiO<sub>2</sub> metal matrix composites. *Journal of Chemical Technology and Metallurgy*, 56(1), 2021, 235-246.
- xvii. Oluyemi Ojo Daramola, Oluwatosin Abiodun Balogun, **Adeolu Adesoji Adediran**, Sheriff Olalekan Saka, Isiaka Oluwole Oladele, Esther Titilayo Akinlabi (2021). Tensile, Flexural, and Morphological Properties of Jute/Oil Palm Pressed Fruit Fibers Reinforced High Density Polyethylene Hybrid Composites, *Fibers* 2021, 9(11), 71; <https://doi.org/10.3390/fib9110071>.

- xviii. **Adeolu Adesoji Adediran**, Abayomi Adewale Akinwande, Oluwatosin Abiodun Balogun, Olanrewaju Seun Adesina, Adeniyi Olayanju, Tajudeen Mojisola (2021). Evaluation of the properties of al-6061 alloy reinforced with particulate waste glass, *Scientific African*, 12, <https://doi.org/10.1016/j.sciaf.2021.e00812>.
- xix. Francis Odikpo Edoziuno, Cynthia Chinasa Nwaeju, **Adeolu Adesoji Adediran**, Eugene Ekedumogwu Nnuka, Olanrewaju Seun Adesina, Sebastian Azowenu Nwose (2021). Factorial optimization and predictive modelling of properties of Ukpok clay bonded synthetic moulding sand prepared using River Niger silica sand, *Results in Materials*, 10, <https://doi.org/10.1016/j.rinma.2021.100194>.
- xx. M Saravana Kumar, HR Javidrad, Ragavanantham Shanmugam, Monsuru Ramoni, **Adeolu A Adediran**, Catalin I Pruncu (2021). Impact of Print Orientation on Morphological and Mechanical Properties of L-PBF Based AlSi7Mg Parts for Aerospace Applications, *Silicon*,
- xxi. Okiemute Dickson Ofuyekpon, Ochuko Goodluck Utu, Basil O. Onyekpe, **Adeolu Adesoji Adediran** (2021). Effect of inhibitor concentration on the potency of stylosanthes gracilis extract as corrosion inhibitor for AISI 304l in sulphuric acid solution. *Scientific African*, 11, March 2021, e00714.
- xxii. Akinwande Abayomi A, **Adediran Adeolu A**, Balogun Oluwatosin A, Olasaju O. S, Adesina Olanrewaju S (2021). Influence of alkaline modification on selected properties of banana fiber paperbricks. *Scientific Reports*, 11 (1), 1-18.
- xxiii. **Adediran Adeolu A**, Balogun Oluwatosin A, Akinwande Abayomi A, Olasaju O. S, Adesina Olanrewaju S (2021). Experimental evaluation of bamboo fiber/particulate coconut shell hybrid PVC composite. *Scientific Reports*, 11 (1), 1-14.
- xxiv. J.K. Odusote, T.B. Asafa, J.G. Oseni, A.A. Adeleke, **A.A. Adediran**, R.A. Yahya, J.M. Abdul, S.A. Adedayo (2021). Inhibition efficiency of gold nanoparticles on corrosion of mild steel, stainless steel and aluminium in 1M HCl solution, *Materials Today: Proceedings*, 38, Part 2, 2021, 578-583.
- xxv. Moses Ebiowei Yibowei, Joseph Gbolahan Adekoya, **Adeolu Adesoji Adediran**, Oludaisi Adekomaya (2021). Carbon Based Nano-Filler in Polymeric Composites for Supercapacitor Electrode Materials: A Review, *Environmental Science and Pollution Research*, 10.1007/s11356-021-13589-z.
- xxvi. **AA Adediran**, AA Akinwande, OA Balogun, BJ Olorunfemi (2021). Optimization studies of stir casting parameters and mechanical properties of TiO<sub>2</sub> reinforced Al 7075 composite using response surface methodology, *Scientific Reports*, 11 (1), 1-20.
- xxvii. CC Okonkwo, FO Edoziuno, **AA Adediran**, KK Alaneme (2021). Applications of Biocomposites in Reduction of Environmental Problems, Value-Added Biocomposites, 401-425, CRC.
- xxviii. CC Nwaeju, FO Edoziuno, **AA Adediran**, EE Nnuka, ET Akinlabi, AM Elechi (2021). Development of regression models to predict and optimize the composition and the mechanical properties of aluminium bronze alloy, *Advances in Materials and Processing Technologies*, 1-18
- xxix. **AA Adediran**, FA Olanrewaju, OS Adesina, KK Alaneme, ET Akinlabi, RM Mahamood (2021). Mechanochemical Processing and Characterization Studies of Si-Based Refractory Compounds Derived from Sugarcane Bagasse, *Advances in Materials and Processing Technologies*, 1-10
- xxx. Chukwuma Chris Okonkwo, Francis Odikpo Edoziuno, **Adeolu Adesoji Adediran**, Enoch Mayowa Ibitogbe, Rasheedat Mahamood, Esther Titilayo Akinlabi (2021). Renewable



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- xxxii. Rasaq A Kazeem, David A Fadare, Omolayo M Ikumapayi, Temitayo M Azeez, **Adeolu A Adediran** (2021). Development of Bio-Cutting Fluid (*Cirtullus lanatus*) and its Performance Assessment on the Machining of AISI 1525 Steel Using Taguchi Technique and Grey Relational Analysis. *Biointerface Research in Applied Chemistry*, 12(4), 5324-46
- xxxiii. FO Edoziuno, **AA Adediran**, BU Odoni, CC Nwaeju, OS Adesina, M Oki (2021). Influence of wormin mebendazole on the corrosion of mild steel in 1.0 M sulphuric acid. *Results in Engineering*, 9, 100192
- xxxiiii. FO Edoziuno, CC Nwaeju, **AA Adediran**, BU Odoni, VRA Prakash (2021). Mechanical and microstructural characteristics of Aluminium 6063 Alloy/Palm Kernel shell composites for lightweight applications, *Scientific African*, 12, e00781
- xxxv. OI Oladele, BA Makinde-Isola, **AA Adediran**, OT Ayanleye, SA Taiwo (2021). Influence of structural physiognomies of pawpaw fiber–glass fiber hybrid–based green composites on mechanical properties and biodegradation potential of epoxy composites, *Journal of Reinforced Plastics and Composites*, 07316844211017646
- xxxvi. **A.A Adediran**, O.A Balogun, A.A Akinwande, O.S Adesina, O.S Olasoju. (2020). Influence of chemical treatment on the properties of cement-paper hybrid composites for ceiling board application. *Heliyon*, 6 (7), e04512.
- xxxvii. H. Shagwira, F. Mwema, T. Mbuya, **A.A. Adediran** (2020). Dataset on impact strength, flammability test and water absorption test for innovative polymer-quarry dust composite. *Data in brief*, 29, 105384.
- xxxviii. Olanrewaju Seun Adesina, Babatunde Abiodun Obadele, Gabriel Ayokunle Farotade, Dayo Adeyemi Isadare, **Adeolu Adesoji Adediran**, Peter Pelumi Ikubanni (2020). Influence of phase composition and microstructure on corrosion behavior of laser based Ti–Co–Ni ternary coatings on Ti–6Al–4V alloy. *J Alloys & Compds.* 827, 154245.
- xxxix. Oladele, I.O., Makinde-Isola, B.A., Oladejo, M.O., **Adediran, A.A.**, Owa, A.F. (2020). Mechanical and wear behaviour of pulverished poultry eggshell/sisal fiber hybrid reinforced epoxy composites. *Mater. Res. Express*, 7, 045304.
- xl. Oladele, I.O, Ibrahim, O.I., **Adediran A.A.**, Akinwekomi A.D., Adetula Y. V. and Olayanju, T.M.A. (2020). Modified Palm Kernel Shell Fiber/Particulate Cassava Peel Hybrid Reinforced Epoxy Composites. *Results in Materials*, 5, 100053.
- xli. I.O. Oladele, M.O. Oladejo, **A.A. Adediran**, B.A. Makinde-Isola, A.F. Owa and E. T. Akinlabi. Influence of designated properties on the characteristics of dombeya buettneri fiber/graphite hybrid reinforced polypropylene composites (2020). *Scientific reports*, 10, 11105 (2020).
- xlii. Isiaka Oluwole Oladele, Oluwaseun Temilola Ayanleye, **Adeolu Adesoji Adediran**, Baraka Abiodun Makinde-Isola, Anuoluwapo Samuel Taiwo, Esther Titilayo Akinlabi. (2020). Characterization of Wear and Physical Properties of Pawpaw-Glass Fibers Hybrid Reinforced Epoxy Composites for Structural Application. *Fibers*, 8(7), 44.
- xliii. O.P. Balogun, J.A. Omotoyinbo, K.K. Alaneme, **A.A. Adediran**. Physical and Mechanical Properties of Entada Mannii particulates Reinforced Composites (2020). *Heliyon*, 6(6), e04157.
- xliiii. Daramola OO, Olajide JL, **Adediran AA**, Adewuyi BO, Ayodele TT, Desai DA, and Sadiku ER (2020). Multiscale Analysis and Experimental Validation of the Effective

- Elastic Modulus of Epoxy-Dioctahedral Phyllosilicate Clay Composite. *Heliyon*, 6(6), e04008.
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  - lv. Oladele Isiaka Oluwole, Taiwo Anuoluwapo Samuel, **Adediran Adeolu Adesoji**, Omoniyi Ayodeji Mathew, Adanri Oluwafemi Emmanuel (2019). Design and Fabrication of a Waste Paper Recycling Machine. *Journal of Production Engineering*, 22 (1), 19-24.
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- xc. Olawale, O. Oyawale, F.A. **Adediran, A.A.** (2016): Corrosion Inhibition of Mild Steel in Seawater using Jatropha Stem, *Fascicula de Inginerie*, 23 (1), pp. 228-238, <http://anale-ing.uem.ro/2016/26.pdf>. Published by Eftimie Murgu University of Resita Romania.
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- xcv. Ismail, S. O, Ojolo, S. J, Orisaleye, J. I, **Adediran, A. A** and Fajuyitan, O. O (2015): Design and Development of an Improved Palm Kernel Shelling and Sorting Machine, *European International Journal of Science and Technology*, 4, No.2, pp. 225-240. [https://www.eijst.org.uk/images/frontImages/gallery/Vol\\_4\\_No\\_2/24\\_225-240.pdf](https://www.eijst.org.uk/images/frontImages/gallery/Vol_4_No_2/24_225-240.pdf).
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## 12. SELECTED MANUSCRIPTS UNDER REVIEW

- i. Modelling and optimization of coefficient of friction of dual Phase steel using different learning algorithm of ANN.
- ii. Corrosion of Aluminium in Humid Atmosphere.
- iii. Mechanical properties of CaCO<sub>3</sub>/Calcine-derived CaO/P<sub>2</sub>O<sub>5</sub> particle reinforced polypropylene composites.
- iv. Effect of laser power on the microstructure and mechanical characteristics of laser deposited titanium aluminide composite.
- v. Factorial Optimization and Predictive Modelling of Properties of Ukpor Clay Bonded Synthetic Moulding Sand Prepared using River Niger Silica Sand
- vi. Mechanochemical Processing and Characterization Studies of Si-based Refractory Compounds Derived from Sugarcane Bagasse
- vii. Recycling of Synthetic Waste Wig Fiber (WWF) in the Production of Cement-Adobe for Building Envelope: Physio-Hydric Properties
- viii. Tensile, Flexural and Morphological Properties of Jute/Oil Palm Pressed Fruit Fibers Reinforced High-Density Polyethylene Hybrid Composites
- ix. A Review on Polymers and Polymer Composites, their Applications and Disposal
- x. Evaluation of the Properties of Al-6061 Alloy Reinforced with Particulate Waste Glass
- xi. On the applicability of CuZnAlNi shape memory alloy particles as reinforcement in aluminium based composites: structural and mechanical behaviour considerations

13. CONTRIBUTION TO BOOK (INTERNATIONAL/LOCAL).

- i. Oludaisi Adekomaya, Tamba Jamiru, Emmanuel Rotimi Sadiku, Zhongjie Huan, **A. A. Adediran**, Daramola Oluyemi Ojo, and Jimmy Lolu Olajide (2019): Chpt 3. Adaptation and viability of graphene-based materials in clinical improvement, Handbook of graphene: Biomaterials, Vol.7, WILEY & Sons LLC, USA. pp. 342.
- ii. Joan Nyika, **Adeolu Adesoji Adediran**, Adeniyi Olayanju, Olanrewaju Seun Adesina, Francis Odikpo Edoziuno (2020). The potential of biomass in Africa and the debate on its carbon neutrality. Intech Open
- iii. CE Njoku, IS Ike, **AA Adediran**, CC Nwaeju (2021). The Place of Biomass-Based Electrode Materials in Next-Generation Energy Conversion and Storage, Electrode Materials for Energy Storage and Conversion, 229-261, CRC Press
- iv. Chukwuma Chris Okonkwo, Francis Odikpo Edoziuno, **Adeolu Adesoji Adediran**, Kenneth Kanayo Alaneme (2021). Applications of Biocomposites in Reduction of Environmental Problems, Value-Added Biocomposites, CRC Press.

14. UNPUBLISHED CONFERENCE/WORKSHOP PAPER AND PUBLIC LECTURES

- i. O.O. Daramola, **A.A. Adediran**: Investigating the mechanical response of aluminium matrix hybrid composites reinforced with silicon carbide and graphite.

15. SELECTED ACCEPTED CONFERENCE PAPERS

- i. **A. A. Adediran**, K. K., Alaneme, I. O., Oladele, E. T Akinlabi (2019). Processing and structural characterization of Si-based carbothermal derivatives of bamboo leaf. (*International Conference on Sustainable Materials Processing and Manufacturing*). Manufacturing Procedia, Elsevier
- ii. **A. A. Adediran**, K. K., Alaneme, I. O., Oladele, E. T Akinlabi (2019). Structural Characterization of Silica based Carbothermal Derivatives of Rice Husk. (*International Conference on Sustainable Materials Processing and Manufacturing*). Manufacturing Procedia, Elsevier
- iii. **A.A. Adediran**, O. Olawale, J. Ojediran, S. Aladegboye, O.D, Atoyebi, E.T., Akinlabi, T.M.A, Olayanju (2019). Properties of agro-based hybrid particleboards. (*International Conference on Sustainable Materials Processing and Manufacturing*). Manufacturing Procedia, Elsevier
- iv. J.K. Odusote, A.A., Adeleke, S.A., Bankole, **A.A. Adediran** (2019). Characterization of Iron Ores from Jaruwa and Agbaja Deposits. (*International Conference on Sustainable Materials Processing and Manufacturing*). Manufacturing Procedia, Elsevier
- v. O.S Fatoba, S.A Akinlabi, E.T Akinlabi, L.C Naidoo, **A.A Adediran**, O.S Odebisi (2020). Microstructural Enhancement and Performance of Additive Manufactured Titanium Alloy Grade 5 Composite Coatings. ASME 2020 International Mechanical Engineering Congress and Exposition (IMECE 2020), Paper No: IMECE2020-24125, V02BT02A026; 6 pages, <https://doi.org/10.1115/IMECE2020-24125>.
- vi. O. S. Fatoba , A. M. Lasisi , S. A. Akinlabi , E. T. Akinlabi , A. A. Adediran (2020). Influence of Process Parameters on the Microstructure, and Geometrical Characteristics of Laser Additive Manufactured (LAM) Titanium Alloy Composite Coatings, Paper No:

IMECE2020-24105, V02BT02A025; 7 pages, <https://doi.org/10.1115/IMECE2020-24105>.

16. B.Sc./M.SC./Ph.D. SUPERVISION

B. Sc. Supervision

- a. Ofili, C.P (2014/2015 session): Investigating the corrosion rate of pipeline steel in the presence of agro-product.
- b. Ogunsola, O.A (2015/2016 session): Corrosion protection of aluminium alloy for vehicle bodies using hybrid coatings.
- c. Ogundairo, A.S; Bassey, V; and Ologbo, O.G (2016/2017 session): Design and fabrication of a muffle furnace.
- d. Ani Princewill and Olanrewaju Fuad (2019/2020 session)- Synthesis of Si-based refractory compounds from selected agro wastes.
- e. Okolo David and Adeoye Micheal (2020/2021 session)- Effect of alumina & Si-based refractory compounds of bamboo leaf on the mechanical behaviour of Al-Mg-Si alloy.
- f. Fekumo Simeon and Obiku Bawo (2020/2021 session)- Wear assessment of alumina & Si-based refractory compounds of bamboo leaf reinforced with Al-Mg-Si alloy matrix hybrid composites.
- g. Taiwo Daniel Ajibola and Amaliri Lawrence (2020/2021 session)- Wear & corrosion performance of aluminium metal matrix composites reinforced with reduced graphene.
- h. Ogunkola Babafemi and Oyinloye Goodness (2020/2021 session)- Microstructure & mechanical behaviour of hybrid reinforced SiC-Alumina-reduced graphene on Al-Mg-Si alloy.

17. ACADEMIC LINKAGES

- i. Department of Mechanical Engineering Science, Faculty of Engineering and Built Environment, UJ, South Africa, University of Johannesburg, South Africa  
Collaborating scientist: Prof. T.C. Jen
- ii. Department of Metallurgical and Materials Engineering, School of Engineering and Engineering Technology, Federal University of Technology Akure  
Collaborating scientist: Prof. K.K. Alaneme
- iii. Directorate, Pan African University for Life, Earth Sciences Institute (PAULESI), Ibadan  
Collaborating scientist: Prof. E.T.Akinlabi
- iv. Department of Chemical, Materials and Metallurgical Engineering, Faculty of Engineering, Botswana International University of Science and Technology, Palapye Botswana  
Collaborating scientist: Dr. Philip Oladijo
- v. Department of Metallurgical and Materials Engineering, School of Engineering and Engineering Technology, Federal University of Technology Akure  
Collaborating scientist: Dr. O.O. Daramola



- vi. Department of Mechanical Engineering, Faculty of Engineering, Olabisi Onabanjo University, Ago-iwoye, Ogun State.  
Collaborating scientist: Dr. A. Oludaisi

18. MEMBERSHIP OF LEARNING SOCIETIES AND PROFESSIONAL BODIES

- a. Nigeria Society of Engineers (G13197)
- b. Nigeria Society of Engineers (37365)
- c. Nigeria Institute of Management (169108)
- d. Nigerian Metallurgical Society (C1033)
- e. Council for the Regulation of Engineering in Nigeria (COREN) R.32410

19. RESEARCH INTERESTS OR COMMISSIONED PROJECTS

- i. Completed
  - a. Design and fabrication of a muffle furnace
  - b. Investigating the corrosion rate of pipeline steel in the presence of an agro-product
  - c. Corrosion protection of aluminium alloys for vehicle bodies using hybrid coatings
  - d. Corrosion inhibition of mild steel in seawater using *Jatropha* stem
  - e. Inhibitory action of *Vernonia Amygdalina* Extract on the corrosion of carbon steel in acidic medium
  - f. Processing and structural characterization of Si-based carbothermal derivatives of rice husk
  - g. Synthesis of Si-based refractory compounds from coconut shell by carbothermal method
  - h. Strength evaluation of particleboard produced from saw dust and plastic waste
- ii. In progress
  - a. Comparative studies on hybrid coatings for vehicle bodies application
  - b. Inhibitory action of orogbo on the corrosion of carbon steel in acidic and saline media
  - c. Studies on the inhibition of orange seed on the corrosion of carbon steel in both acidic and saline media
  - d. Investigations on corrosion of aluminium in acidic solutions using *Hibiscus sabdariffa* leaves
  - e. Inhibitory action of  $\text{KMnO}_4$ / 0.5 M sulphuric acid on aluminium
  - f. Development of particleboard using hybrid composites
  - g. Characterization and morphology assessment of Si-based refractory compounds of coconut shell.
  - h. Fractographic assessment of metal matrix composites developed from Si-based refractory compounds of rice husk
  - i. Development of hybrid composites for particleboard
  - j. Morphological assessment of spark plasma sintered Si-based refractory compounds
  - k. Processing and characterization of nano-composited derived from agro-wastes

## 20. SERVICE OUTSIDE THE UNIVERSITY

- a. Editorial Board Member, International Advanced Researches and Engineering Journal (<https://dergipark.org.tr/en/pub/iarej/board>)
- b. Reviewer, Journal of Engineering and Technology (Scopus index)
- c. Reviewer, Research Journal of Engineering and Technology
- d. Reviewer, Jurnal Unsyiah
- e. Reviewer, Int. J. of Engr. Res in Africa (Scopus index)
- f. Reviewer, CIGR Journal (Scopus index)
- g. Reviewer, Case Studies in Construction Materials –Elsevier (Scopus index)
- h. Reviewer, Scientia Iranica (Scopus index)
- i. Reviewer, Emergent Materials (Scopus index)
- j. Applied Science and Engineering Progress

## 19. EXTRA CURRICULAR ACTIVITIES

- a. Researching and travelling

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