



BRIEF PROFILE OF
DR. ADEKUNLE TAOFEEK OYELAMI
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Dr. A.T. Oyelami holds a Ph.D Degree in Mechanical Engineering with a bias for Computer Integrated Manufacturing. He is registered with the Council for the Regulation of Engineering in Nigeria (COREN) and a Corporate Member of the Nigerian Society of Engineers. He was the National Secretary General of the Materials Science and Technology Society of Nigeria (MSN) from 2014 – 2018 and former Zonal Coordinator of Nigeria Society of Engineers (EMDI Zone of Akure Branch).

Dr. Oyelami was formerly a Chief Engineer and Head of Department of Design, Modeling and Simulation at Engineering Materials Development Institute Akure (2012 – 2017) and an Adjunct Senior Lecturer in the department of Mechanical, Automotive, and Production Engineering at Elizade University, Ilara Mokin. He joined the Federal University of Agriculture Abeokuta as Lecturer I in September 1, 2017 and was appointed the Coordinator of the Department of Mechatronics Engineering on July 3, 2019. After he was promoted to the rank of a Senior Lecturer in October 1, 2020, the University authority appointed him as the Acting Head of Department of Mechatronics Engineering, a position he held till January 3, 2023.

Dr. Adekunle Oyelami has published in both local and international journals and attended several technical workshops and conferences both within and outside Nigeria with a total of forty-five publications consisting of twenty-eight journal publications and seventeen refereed conference proceedings. He participated in the First International Workshop on "Low-cost 3D Printing for Science, Education and Sustainable Development" Organized by the ICTP, Trieste, Italy from May 6 – 8, 2013; World Congress on Engineering 2012 Organized by the International Association of Engineers held at Wolfson Education Centre, Imperial College, London, U.K. from July 4 – 6, 2012; The Promoting African European Research Infrastructure Partnerships (PAERIP) seminar on Africa – Europe Research Infrastructure Cooperation Held at the Woburn House, Association of Commonwealth Universities, 20-24 Tavistock Square London, on Wednesday 17th October, 2012 among others.

Dr. A.T. Oyelami is happily married and blessed with children.

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| i) Name in Full: | OYELAMI, Adekunle Taofeek |
| ii) Place of Birth: | Iragbiji, Osun State |
| iii) Sex: | Male |
| iv) Marital Status: | Married |
| v) Nationality: | Nigerian |
| vi) Town and State of Origin: | Iragbiji, Osun State |
| vii) Department: | Department of Mechatronics Engineering |
| viii) E-Mail Addresses: | oyelamiat@funaab.edu.ng ; atoyelami@yahoo.com |
| ix) Phone Number: | +234 8033678832 |
| x) Rank/Designation: | Senior Lecturer |
| xi) Researchgate Address: | https://www.researchgate.net/profile/Adekunle-Oyelami |
| xii) LinkedIn Address: | |
| xiii) Google Scholar Profile: | https://scholar.google.com/citations?hl=en&user=4brOUU8AAAAJ |
| xiv) ORCID Number: | https://orcid.org/0000-0002-0942-7778 |

xv) Academic and Professional Qualifications:

• **Educational Institutions Attended:**

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|----------------------------------------------------------------------|--------------------|
| a) Federal University of Agriculture, Abeokuta | 2009 – 2012 |
| b) Federal University of Technology, Akure | 2006 – 2007 |
| c) Federal University of Technology, Akure | 2004 – 2006 |
| d) Ladoke Akintola University of Technology, Ogbomoso | 1997 – 2002 |
| e) Obafemi Awolowo University Consultancy Services (UNIFECS) Ile-Ife | May – Nov.
1999 |
| f) Holy Michael High School, Ikirun – Osun State | 1994 – 1996 |
| Baptist Secondary Grammar School, Iragbiji – Osun State | 1990 – 1994 |

• **Academic and Professional Qualifications:**

• **Academic Qualifications**

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|------------------------------------------------------|------------|
| a) Ph.D. Mechanical Engineering | June, 2012 |
| b) Master of Business Administration | Oct., 2007 |
| c) M.Eng., Mechanical Engineering; Production Option | June, 2006 |
| d) B.Tech., Mechanical Engineering | June, 2002 |
| e) Diploma in Computer Studies | Dec., 1999 |
| f) Senior School Certificate | June, 1996 |

• **Professional Qualifications**

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| a) Registered Mechanical Engineer with the Council for the Regulation of Engineering in Nigeria (COREN), Registration Number R.14,599 | Oct. 2007 |
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xvi) Prizes, Honours and Awards

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| a) Presidential Merit Award by the Materials Science and Technology Society of Nigeria | Nov. 13, 2018 |
| b) Merit Award by the Nigerian Society of Engineers, Akure Branch | August 19, 2017 |
| c) Branch Service Award by the Nigerian Society of Engineers, Akure Branch | August 27, 2016 |
| d) Branch Service Award by the Nigerian Society of Engineers, Akure Branch | August 22, 2015 |
| e) Award of Best Staff of the Second Half of the Year 2007 of Engineering Materials Development Institute Akure | April 17, 2008 |
| f) Certificate of Honour in Service from N.Y.S.C Yobe State | October 6, 2002 |
| g) Merit Award from the Nigerian Universities' Engineering Students Association (NUESA), Ladoke Akintola University of Tech., Ogbomoso | April 2, 2001 |
| h) Best Mathematics and Chemistry Student of the Year at the Valedictory Service of Holy Michael High School, Ikirun Osun State | 1996 |

xvii) Membership of Professional Bodies

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| a) | Registered Mechanical Engineer with the Council for the Regulation of Engineering in Nigeria (COREN), Registration Number R.14,599 | October, 2007 |
| b) | Corporate Member, Nigerian Society of Engineers (NSE), Registration Number 32797 | September, 2014 |
| c) | Member, International Association of Engineers, Hong Kong, Registration Number 111154 | January, 2011 |
| d) | Fellow, Materials Science and Technology Society of Nigeria (FMSN) – (No: F/0522) | Dec, 2021 |

xviii) Research Conducted

• **Completed**

- a. Configuration and Deployment of UAV Surveillance System with SMS Feedback.
- b. Office Automation with Door Access Control
- c. Automatic Fuel Dispenser with Payment Gateway
- d. Voice Controlled Robotic Arm
- e. Smart Wheelchair with Hand Gesture Control
- f. Development of Pneumatic Shearing Machine with Clamping Mechanism
- g. Autonomous Fire Fighting Robots
- h. Automated White Board Cleaner
- i. Automated Zebra Crossing System
- j. IoT Based Automated Parking System
- k. Voice-Controlled Automatic Lighting System
- l. Model Development of an Automated Poultry Feeding System
- m. Enhancing the Refractory Properties of Ajebo Clay with Blends of Local Agricultural Wastes for Industrial Applications
- n. Development and Performance Evaluation of 1kW Demo Propeller Hydropower Turbine
- o. Development and Performance Evaluation of 10kW Propeller Hydropower Turbine
- p. Development and Installation of 35kW Cross-Flow Small Hydro Power Turbine
- q. Design and Development of 2-mould Inter-Locking Block Making Machine
- r. Design and Development of 8-mould Inter-Locking Block Making Machine
- s. Development of a Mathematical Template for Spherical Tank Development
- t. Design and Development of a Prototype 225liter-Capacity Spherical Tank
- u. Design and Development of a Yam Pounding Machine
- v. Design and Development of 100kg Capacity Rotary Furnaces
- w. Design and Development of Radiation Recuperative Heat Exchanger for recycling of waste heat in rotary furnace
- x. Design and Development of Closed-Type Impeller Blower for Rotary Furnace

• **In Progress**

- a. Automated Animal Health Monitoring System
- b. Automated Fertigation System for Hydroponics Farming using IoT

- c. Automatic Continuous Drying Machine
- d. Deployment of Unmanned Ground Vehicle (UGV) for Waste Identification and Sorting
- e. Development of Fibre Extracting Machine From Banana Pseudo-Stem
- f. Automating Interlocking Brick Making Process
- g. Development of a Low Cost Creep Testing Machine
- h. Development of an Efficient Gas-Fired Poultry Egg Incubator.
- i. Development of Pneumatic Sheet Metal Clamping and Shearing Machine
- j. Low-Cost Exhaust Gas Analyzer

xix) Publications

a) Theses/Dissertation

1. **Oyelami A.T.** (2012): Computer-Aided Design and Process Simulation of Recuperator-Incorporated Industrial Rotary Furnace. Unpublished PhD Thesis, Department of Mechanical Engineering, Federal University of Agriculture, Abeokuta, Nigeria. pp 735.
2. **Oyelami A.T.** (2007): Optimization of Variable Input Usage in Small and Medium Enterprises. Unpublished MBA Thesis, Department of General Studies, School of Postgraduate Studies, Federal University of Technology, Akure, Nigeria. pp 82.
3. **Oyelami A.T.** (2006): Development of Recuperators for Rotary Furnaces. Unpublished M.Eng Thesis, Department of Mechanical Engineering, Federal University of Technology, Akure, Nigeria. pp 127.
4. **Oyelami A.T.** (2002): Evaluation of Temperature Distribution of Heat Transfer Agents along the length of a Heat Exchanger. Unpublished B.Tech Thesis, Department of Mechanical Engineering, Ladoke Akintola University of Technology, Ogbomoso, Nigeria. pp 64.

b) (i) Selected Journal Articles in Print

1. **A.T. Oyelami**, V. Awolere and O. Akintunlaji (2023): Simplified Intelligent Parking System using ESP32 Microcontroller. *ADB Journal of Engineering Technology*. 12(1); 1-5. Published by the Assam Don Bosco University, Guwahati, India.
2. **A.T. Oyelami**, O. M. Bamgbose and O. A. Akintunlaji (2023): Mission-Planner Mapped Autonomous Robotic Lawn Mower. *Journal Europeen des Systemes Automatises*. 56(2); 253-258, Published by the International Information and Engineering Technology Association (IIETA), Canada. **(Scopus Indexed)**
3. **A.T. Oyelami** and A. Oluwole (2023). Incorporating Grain Detection and Speed Control Mechanisms in Hammer Mill Operations. *Nigerian Journal of Technology (NIJOTECH)*. 42(2); 222 - 229, Published by University of Nigeria, Nsukka.
4. **A.T. Oyelami** and S.A. Shoge (2022): Low-Cost Automated Poultry Feeding System Using Atmega328 Microcontroller. *International Journal of Basic Science and Technology*. 8(3); 251-257, Published by the Faculty of Science, Federal University Otuoke, Bayelsa State, Nigeria.
5. **Oyelami A.T.**, Iliya D.D., Aigbogun O.J., Adejugbe I.T. and Olusunle S.O.O. (2022): Development of a 10kw Propeller Hydroturbine with a Test Rig for Performance

- Evaluation. *International Journal of Basic Science and Technology*. 8(3); 291-301, Published by the Faculty of Science, Federal University Otuoke, Bayelsa State, Nigeria.
6. Ishola A. A., **Oyelami A. T.**, Orelaja O. A., and Olaniran O. A. (2022). Implementation of Fuzzy-PID Controller for Weft Yarn Tension Control in Textile Industries; *International Journal of Basic Science and Technology*. 8(3): 208-216. Published by the Faculty of Science, Federal University Otuoke, Bayelsa State, Nigeria.
 7. **Oyelami, A.T.**, Adejuyigbe, S.B., Olusunle, S.O. (2021): Thermal analysis of recuperator developed for waste heat recycling in liquid-fuel fired furnaces. *International Journal of Heat and Technology*. 39(1); 121-127. Published by the International Information and Engineering Technology Association (IIETA), Canada. **(Scopus Indexed)**
 8. **A. T. Oyelami**, A. S. Akinade and K. C. Obianefo (2020): Development of a real-time framework for farm monitoring using drone technology. *International Journal of Robotics and Automation (IJRA)*. 9(4); 244-250. Published by the Institute of Advanced Engineering and Science (IAES), Switzerland.
 9. **Oyelami A. T.**, Kuye, S. I., and Babalola A. S. (2020): Production and Characterization of Enhanced Fireclay Refractory Bricks for Melting Furnaces. *Umudike Journal of Engineering and Technology (UJET)*. 6(1): 76-87. Published by Michael Okpara University of Agriculture, Umudike.
 10. **Oyelami A.T.** (2019): 3-D Printing as a Veritable Tool for STEM and Non-Technical Education. *Nigerian Journal of Materials Science and Engineering*; 9(1); 27-34. Published by the Materials Science and Technology Society of Nigeria.
 11. **A. T. Oyelami** and S. O.O. Olusunle (2019): Spherical Storage Tank Development through Mathematical Modeling of Constituent Sections. *Mathematical Modelling of Engineering Problems*. 6(3); 467-473. Published by the International Information and Engineering Technology Association (IIETA), Canada. **(Scopus Indexed)**
 12. Aborisade D. O., Oronti I. B., Ishola A. A., **Oyelami A. T.**, Owoeye S. O. and Johnson T. M., (2018): Development of a Home and Industrial Safety System. *Umudike Journal of Engineering and Technology (UJET)*. 4(2); 57-64, Published by University of Agriculture, Umudike, Nigeria
 13. **Oyelami A.T.**, Adejuyigbe S.B. and Olusunle S.O.O. (2014): Computational Modeling of Temperature Distribution of Streams in Recuperative Heat Exchanger. *Journal of Emerging Trends in Engineering and Applied Sciences (JETEAS)*. 5(8); 164-169. Published by the Scholarlink Research Institute UK.
 14. Ukoba, K; Aigbogun, J.O; Alasoluyi, J.O.; **Oyelami, A.T**; Idowu A.S.; Babatunde, O.G., and Olusunle, S.O.O (2014): Development of Laboratory-Scale Salt Bath Furnace. *Journal of Innovative Systems Design and Engineering*, 5(8); 16-21. Published by the International Institute for Science, Technology & Education (IISTE), USA
 15. T. Adejugbe, O. K. Ukoba, A. S. Idowu, **A. T. Oyelami**, and S. O. O. Olusunle (2014): Development of Double Mould Vibration – Compactor Block Moulding Machine for Developing Countries. *Physical Science International Journal*. 4(10);1358-1369. Published by ScienceDomain International, U. K.

16. Olusunle S.O.O., **Oyelami A.T.** and Akinribide O.J. (2013); Evaluation of the Strength Variation of Carbonous Concrete. *Global Advanced Research Journal of Engineering, Technology and Innovation (GARJETI)*. 2(4); 126-131. Published by Global Advanced Research Journals
17. **Oyelami, A.T.**, Adejuyigbe, S.B. and Waheed, M.A. (2012): Modeling and Simulation of Thermodynamic Properties of Streams in High-Temperature Melting Furnaces. *Nigerian Journal of Materials Science and Engineering (NJMSE)*. 3(1); 36-43, Published by the Materials Science and Technology Society of Nigeria.
18. **Oyelami A.T.**, S.B. Adejuyigbe, M.A. Waheed, A.K. Ogunkoya, and D. Iliya (2012); Analysis of Radial-Flow Impellers of Different Configurations. *Pacific Journal of Science and Technology*. 13(1):24-33. Published by the Akamai University, USA.
19. **Oyelami A.T.**, A.K. Ogunkoya, O.D. Ogundare, and B.A. Olunlade (2012); Finite Elements Analysis of Weldments with H- and P-Elements of Differing Orders of Interpolating Polynomials. *Pacific Journal of Science and Technology*. 13(1):67-77. Published by the Akamai University, USA.
20. A.K. Ogunkoya, **A. T. Oyelami**, O. Ogundare, and B. A. Olunlade (2012). Comparative Evaluation of Flux Coated Mild Steel Electrodes in Nigeria. *Assumption University Journal of Technology*. 15(3); 201-204. Assumption University, Thailand
21. **Oyelami, A.T.**, Olaniyan, O.O., Iliya D. and Idowu A.S. (2008); The Design of a Closed-Type-Impeller Blower for a 500kg Capacity Rotary Furnace. *Assumption University Journal of Technology* 12(1): 50-56. Assumption University, Thailand
22. **Oyelami, A.T.** and Adejuyigbe, S.B. (2007): Software Development for the Design of a Recuperator-Incorporated Rotary Furnace. *Modelling, Measurement and Control Journal*. 76(5); 1-13, Published by AMSE Press, France **(Scopus Indexed)**
23. **Oyelami, A.T.**, and Adejuyigbe, S.B. (2006): The Design of a Radiation-Recuperative Heat Exchanger for a 200kg Capacity Rotary Furnace. *Assumption University Journal of Technology*. 10(2); 101-108. Assumption University, Thailand.
24. Enweremadu, C.C., **Oyelami, A.T.** and Ogunkoya A.K. (2004); A Model for Evaluation of Temperature Distribution along the Length of a Heat Exchanger. *Global Journal of Mechanical Engineering*, 5(1): 18-23. Published by the Department of Mechanical Engineering, University of Uyo, Nigeria

(ii) Journal Articles Accepted for Publication

25. **A. T. Oyelami**, K. Oseni, A. Fadlullah, I. Akinola and O. Akintunlaji: Automatic Fuel Dispensing With Payment Gateway. *Equity Journal of Science and Technology* Published by the Kebbi State University of Science and Technology, Aliero, (Letter of Acceptance dated June 23, 2023).
26. **A. T. Oyelami**, E. W. Fisayo and A. O. Emmanuel: 4-Degree-of-Freedom Voice-Controlled Robotic Arm. *IAES International Journal of Robotics and Automation (IJRA)*. (Letter of Acceptance dated May 28, 2023).

(iii) Selected Edited Conference Proceedings

27. **Adekunle Oyelami** and Jonathan Nweke (2021): Pneumatic Shearing with Clamping

- Mechanism; *Proceedings of the 20th Nigerian International Materials Congress (NIMACON 2021), Awka Nigeria, December 8 – 10, 2021*, C. Nwoye and V.U. Okpala (Eds.), 13-20. Published by the Materials Science and Technology Society of Nigeria.
28. **A.T. Oyelami**, S.B. Adejuyigbe and M.A. Waheed (2012); Performance Evaluation of Recuperative Heat Exchanger in Rotary Furnace. *Proceedings of the World Congress on Engineering*, London, UK, July 4 – 6, 2012, A.M. Korsunsky (Ed), 1766 – 1772. Published by Newswood Limited, the International Association of Engineers (IAENG), Hong Kong.
29. **Oyelami A.T.** and Ogunkoya A.K. (2011): Programming and Communication in Factory Automation using Programmable Logic Controller. *Combined Proceedings of the 9th and 10th Nigerian Materials Congresses (NIMACON 2010 and 2011), Akure, Nigeria, November 21 – 24, 2011*, B. Adewuyi and D. Pelemo (Eds), 276-280. Published by the Materials Science and Technology Society of Nigeria.
30. **Oyelami, A.T.** and Olaniyan, O.O. (2007): Mechatronics: Current Advances in Materials Processing. *Proceedings of the 6th Nigerian Materials Congress (NIMACON 2007), Ile-Ife, Nigeria, November 14 –17, 2007*, B. Babatope, W.O. Siyanbola and A.R. Adetunji (Eds), 98-103. Published by the Materials Science and Technology Society of Nigeria