

## Isiaka Ayobi Raheem, Ph.D.

College of Education, Texas Tech University | 3002 18th St, | Lubbock, TX 79424  
+1-806-758-2216; +234 8086800417 | [iraheem@ttu.edu](mailto:iraheem@ttu.edu), [iraheem@unilag.edu.ng](mailto:iraheem@unilag.edu.ng)

**ORCID ID Number:** <https://orcid.org/0000-0002-0092-2596>  
**Scopus ID:** [Raheem, Isiaka Ayobi - Author details - Scopus](#)  
**Web of Science ID:** [JUU-9124-2023.](#)  
**YouTube Channel:** <https://www.youtube.com/channel/UCxpAIuj8znR-Vl3jLR2IkKA>  
**LinkedIn Channel:** <https://ng.linkedin.com/in/dr-isiaka-raheem-92ba993a>  
**Research Gate Channel:** [Isiaka Raheem \(researchgate.net\)](#)  
**Twitter Identifier:** [Dr. Isiaka RAHEEM \(@DrIsiakaRAHEEM1\) / Twitter](#)  
**Google Scholar:** [https://scholar.google.com/citations?hl=en&user=N8QuNbYAAAAJ&view\\_op=list\\_works&gmla=AOAOcb0X0iV\\_arzkIIykGbRiYOsqbHt6z-eUPSXaoxqAmxwOqOeoaUBCLrnefoho3fEejMWD-LSt3hVOr7MiefEA](https://scholar.google.com/citations?hl=en&user=N8QuNbYAAAAJ&view_op=list_works&gmla=AOAOcb0X0iV_arzkIIykGbRiYOsqbHt6z-eUPSXaoxqAmxwOqOeoaUBCLrnefoho3fEejMWD-LSt3hVOr7MiefEA)

### EDUCATION

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- 2023 - 2028 Ph.D. in Curriculum and Instruction (STEM Education Track), College of Education, Texas Tech University, Texas.
- 2015 - 2019 Ph.D. in Educational Technology (CGPA 4.32/5.00), University of Ilorin, Nigeria (Zip Code: 240003) (Senate approval on 30<sup>th</sup> September 2019).  
**Chair:** Prof. Samuel A. Onasanya.  
**Committee:** Profs. Ogunlade, Fakomogbon, Yusuf, Olumorin, and Soetan.  
**Dissertation Title:** Production of Internal-Combustion Engine Mock-ups for Teaching Selected Topics in Auto-Mechanical Work in Senior Secondary Schools, South-West Nigeria.
- 2011 - 2014 Post Graduate Diploma (PGD), Metallurgical and Materials Engineering (CGPA 4.58/5.00), University of Lagos, Nigeria. (Senate approval on 14<sup>th</sup> May 2014).  
**Research Title:** Mechanical Properties of Extension Clamp Produced from Recycled Aluminium Cans.
- 2007 - 2011 M.Ed. in Educational Technology (CGPA 3.41/5.0), University of Lagos, Nigeria. (Senate approval on 26<sup>th</sup> October 2011).  
**Research Title:** The Impact of an Improvised Alternating Current Generator on Students' Academic Achievement in Basic Technology in some Lagos State Upper Basic Schools.
- 2002 - 2005 BSc. in Vocational Teacher Education (Auto-Mechanic / Metal Work) (CGPA- 3.85/5.0), University of Nigeria, Nsukka, Nigeria. (Senate approval on 10<sup>th</sup> January 2005).  
**Research Title:** Workshop Maintenance and Academic Performance of Students in Metalwork at Federal Science and Technical College, Yaba, Lagos State.
- 1997 - 2001 NCE(Tech.) in Metal Work Technology, Federal College of Education, Akoka, Lagos State, Nigeria. (Council approval on 31<sup>st</sup> October 2001).  
**Research Title:** Design and Construction of Electronic Appliances Detachable Type Shelf.

### ACADEMIC APPOINTMENTS/PROFESSIONAL EXPERIENCES

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2023 - Present **Doctoral Research Assistant**, Department of Curriculum and Instruction, Texas Tech University, Lubbock, Texas.

**Responsibilities and Experience:**

- ❖ Research Assistant to Dr. Childers Gina and Dr. Matteson Shirley M.

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- ❖ Review of articles and development of the manuscripts literature reviews.
- ❖ Cleaning, Coding and Analysis of Qualitative Data.

2005 - Present **Assistant Chief Technical Officer**, Department of Physics, Faculty of Science, University of Lagos, Nigeria.

**Responsibilities and Experience:**

- ❖ Using UNILAG Learning Management System (MOODLE) with other co-lecturers to teach Physics Students the Workshop Practice (PHS 226) and Instrumentation (PHS 804b) courses.
- ❖ Face to Face teaching of the Workshop Practice (PHS 226) and Instrumentation (PHS 804b) using the departmental ICT facilities and Workshop tools.
- ❖ Demonstration of practicals to students about the Workshop Practice (PHS 226) and Instrumentation (PHS 804b) courses.
- ❖ Setting and marking of the Workshop Practice (PHS 226) and Instrumentation (PHS 804b) examination questions and answers papers.
- ❖ Conducting Research and Publications.
- ❖ Participating in the semester's examinations' invigilation.
- ❖ Training of the SIWES Students attached to Physics Workshop.
- ❖ General Maintenance and Safety of the Physics Workshop tools and equipment.
- ❖ Maintenance of the Physics Laboratory apparatus/equipment.
- ❖ Ensure optimal safety of students and staff during practical activities in the Physics Workshops and Laboratories.
- ❖ Design, Production, and Improvisation of Science/Technology apparatus in general.

2008 - Present **Adjunct Lecturer**, Distance Learning Institute, University of Lagos, Nigeria.

**Responsibilities and Experience:**

- ❖ Using UNILAG Learning Management System (MOODLE) to teach Physics education students of the Workshop Practice (PHS 362) course.
- ❖ Face to Face teaching of the Workshop Practice (PHS 362) using the departmental ICT facilities and Workshop tools.
- ❖ Demonstration of practical to students about the Workshop Practice (PHS 362) course.
- ❖ Setting and marking of the Workshop Practice (PHS 362) examination questions and answers papers.
- ❖ Participating in the Residential Session's examinations' invigilation.

2017 - 2023 **Adjunct Technologist**, Mountain Top University, Makogi Oba, Ogun State, Nigeria.

**Responsibilities and Experience:**

- ❖ Demonstration of practical to the Food Science and Technology Students about the Workshop Practice course.

2015 - 2019 **Doctoral Student**, Department of Educational Technology, Faculty of Education, University of Ilorin, Nigeria.

**Responsibilities and Experience:**

- ❖ Assisted the Head of Department in teaching the Production of Learning and Instructional Materials (EDT 802) course.
- ❖ Setting and marking the Production of Learning and Instructional Materials (EDT 802) course examination questions and answers papers.
- ❖ Assisted my supervisor in teaching the Technical Drawing (ITE 306) course.
- ❖ Setting and marking of the Technical Drawing (ITE 306) course examination questions and answers papers.
- ❖ Employed by the Institute of Education, University of Ilorin as an Adjunct Lecturer in

teaching Introduction to Educational Technology (EDT214), Materials Technology (TED220) and Land Surveying (TED222) courses.

- ❖ Setting and marking of the Introduction to Educational Technology (EDT214), Materials Technology (TED220) and Land Surveying (TED222) courses examination questions and answers papers.
- ❖ Participating in the sessional examinations' invigilation.

## PATENTS AND PUBLICATIONS

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### *Patented Projects:*

Muhammed Olawale H. Amuda, Uzoma Ifeanyi Oduah, John O. Olatosi, Solomon Nwaneri, H. Muhammed, **Isiaka Raheem**, Sola E. Edagbami, Timilehin P. Adebayo, Ismail A. Oseni and Olufemi Ilori, Bolarinwa Ajigboye, Bola Oboh, Folashade Ogunsola, Oluwatoyin Ogundipe, Lagos State Science, Research & Innovation Council (2020). A Low-cost Rapidly Deployable Synchronous Two-motor Ambu-Ventilator for Patients in Respiratory Distress. *Federal Republic of Nigeria, RP: NG/PT/NC/2020/4592*. The production of the Ventilator's Prototype is sponsored by the Lagos State Science Research & Innovation Council (LASRIC).  
<https://www.youtube.com/watch?v=2Y9IZ1qo3qw>,  
<https://www.youtube.com/watch?v=JzN794PpkWk>,  
<https://unilag.edu.ng/?p=9677#:~:text=The%20Ambubag%20based%20Medical%20Ventilator,Technology%20Research%20and%20Innovation%20Expo>.  
[https://innovation.unilag.edu.ng/invention\\_details?p=A Low Cost Rapidly Deployable Synchronous two motor Ambu Ventilator fo](https://innovation.unilag.edu.ng/invention_details?p=A%20Low%20Cost%20Rapidly%20Deployable%20Synchronous%20two%20motor%20Ambu%20Ventilator%20fo)

Uzoma Ifeanyi Oduah, Iretiola Fajolu, Olufemi Ilori & **Isiaka Ayobi Raheem**. (2019). Solar Powered Neonate Phototherapy Device Station. *Federal Republic of Nigeria, RP: NG/P/2019/99*.  
[https://innovation.unilag.edu.ng/invention\\_details?p=Solar Powered Neonate Phototherapy Device Station](https://innovation.unilag.edu.ng/invention_details?p=Solar%20Powered%20Neonate%20Phototherapy%20Device%20Station)

### *Refereed Journal Articles*

Ahmed I. Issa, Amos O. Onojah, **Isiaka A. Raheem**, Babatunde S. Aweda & Adenike A. Onojah (2021). Undergraduates' Acuity towards the Use of Facebook for Learning. *The Online Journal of New Horizons in Education*. 11(3).

Sefiu A. Bello, Johnson O. Agunsoye, Nasirudeen K. Raji, Jeleel A. Adebisi, **Isiaka A. Raheem** & Suleiman B. Hassan (2021). Interfacial Adhesion and Microstructure of Epoxy/Aluminium Particulate Nanocomposites. *Nano Hybrids and Composites*. 32.1-14. Trans Tech Publications Ltd, Switzerland. DOI: <https://doi.org/10.4028/www.scientific.net/NHC.32.1>

Foluso O. Agunbiade, Anita N. Adimabua, Chisom F. Uzochukwu, Dauda A. Abobade & **Isiaka A. Raheem** (2021). Design and Fabrication of Semi-Batch Reactor for application in Emulsion Chemistry: Promotion of Small and Medium Scale Enterprises. *Journal of Scientific Research and Development (JSRD)*, 20(1). 152-160. A bi-annual journal published by the faculty of Science, University of Lagos.

Buraimoh, O.M., Olusola, O. I., Humphrey, I. **Raheem, I.A.**, Onyekachi, U.K. & Ogundipe, O.T. (2020). Bioconversion of organic wastes for sustainable biogas production using locally sourced materials. *International Journal of Energy for a Clean Environment*. 21 (3): 201-219. DOI: 10.1615/InterJEnerCleanEnv.2020033074.

Ayodele O. Ogunleye & **Isiaka A. Raheem** (2020). Effect of Computer-Assisted Learning and Improvised Instructional Materials on Senior Secondary School Students' Achievement in and Attitude to Physics in Lagos State. *UNILAG Journal of Humanities (UJH)*. 8(1).65-79. <http://ujh.unilag.edu.ng>

Durowaye, S.I., Sekunowo, O.I, Lawal, G.I. & **Raheem, I. A.** (2018). Thermal and tribological

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characterizations of mill scale-particles-reinforced ceramic matrix composites. *Journal of Taibah University for Science*. 12(2), 218-229. [https://doi: 10.1080/16583655.2018.1451108](https://doi.org/10.1080/16583655.2018.1451108)

- Soetan, A.K., **Raheem, I. A.** & Arowolo, J. A. (2017). Influence of Social-Media on Undergraduate Students Academic Performance in University of Ilorin, Ilorin, Kwara State. *International Journal of Innovative Technology in Education*. 4(2), 11-22.
- Johnson O. Agunsoye, Sefiu A. Bello, Adekunle A. Yekinni, **Isiaka A. Raheem** & Olumiyiwa Awe (2016). Effects of Reinforcement Particle Sizes on Mechanical Properties of Aluminium/Eggshell Composites. *Unilag Journal of Medicine, Science and Technology (UJMST)*, University of Lagos, Akoka. 4(2), pg. 133-143.
- Sefiu A. Bello, **Isiaka A. Raheem** & Nasir K. Raji (2015). Study of tensile properties, fractography and morphology of aluminium (1xxx)/coconut shell micro particle composites. *Journal of King Saud University – Engineering Sciences*. 29, 269-27. <https://doi.org/10.1016/j.jksues.2015.10.001>
- S.A. Bello, S.B. Hassan, J.O. Agunsoye, M.G. Zebase Kana, **I.A. Raheem** (2015). Epoxy Resin Based Composites, Mechanical and Tribological Properties: A Review. *Tribology in Industry*. 37(4), 500-524.
- S.A. Bello, S. B. Hassan, J.O. Agunsoye, M.G. Zebase Kana, **I.A. Raheem**. (2015). Synthesis of Uncarbonised Coconut Shell Nanoparticles: Characterisation and Particle Size Determination. *Tribology in Industry*. 37(2), 257 – 263.
- J.O. Agunsoye, S.A. Bello, A.A. Yekinni, **I.A. Raheem**, M.M. Idehenre, T.E. Idegbekwu & A.D. Oderinde (2015). Potential of Recycled Aluminium Cans and 215 µm Sized Eggshell Powder for Low-Cost Metal Matrix Composites. *Journal of Metallurgical Engineering*. 4, 24-30. DOI: 10.14355me.2015.04.004.
- J.O. Agunsoye, S.A. Bello, I.S. Talabi, A.A. Yekinni, **I.A. Raheem**, A.D. Oderinde & T.E. Idegbekwu. (2015). Recycled Aluminium Cans/Eggshell Composites: Evaluation of Mechanical and Wear Resistance Properties. *Tribology in Industry*. 37(1), 107-116.
- O.I. Sekunowo, G.I. Lawal, S.I. Durowaye & **I.A. Raheem**. (2015). Mechanical Characteristics of an Extension Clamp Fabricated from Used Aluminium Beverage Cans. *Journal of the Minerals, Metals and Materials Society (JOM)*, 67(5), 894-900. DOI: 10.1007/s11837-014-1264-9
- S.I. Durowaye, G.I. Lawal, **I.A. Raheem** & V.O. Durowaye (2014). Corrosion Response of Cast Aluminium Alloy for Extension Clamp Fabrication. *American Journal of Materials Science*, 4(4): 159-164 DOI: 10.5923/j.materials.20140404.01.
- Ayodele Ogunleye & **Isiaka Raheem** (2013). The Development and Production of Low-Cost Improved Mobile-Micro Science Apparatus and Kits. *Unilag Journal of Humanities (UJH)*, University of Lagos, Akoka. 1, 97-108.
- Adenle, S. O. & **Raheem, Isiaka A.** (2012). Utilization of Vocational and Technical Education for Youth Empowerment: A Way to Nigeria Technological Development. *International Journal of Multicultural Education (IJME)*. University of Lagos. Vol. 6, 2012, 37 - 50.
- Raheem, I. A.** (2008). Improving the Declining Enrolment in Technical Education in the 21<sup>st</sup> Century. *Journal of School of Pure and Applied Science*, Federal College of Education (Tech.), Akoka- Lagos, (AJOPASE), Vol. 8 No. 1, pg. 71-78.

**Articles in progress:**

John O. Olatosi, Abdullahi Adeyinka Adejare, Funmileyi O. Awobajo, Solomon C. Nwaneri, Johnson A. Olowe, Hisham A. Muhammed, **Isiaka A. Raheem**, Sola E. Edagbami, Ismaila A. Oseni, Samuel A. Adesina, Olufunke A. Olubumuyi, Muhammed O. Amuda, Bolanle O. Oboh, Folasade T. Ogunsola, Oluwatoyin T. Ogundipe. Cardiopulmonary functions and arterial blood gas analysis in anaesthetized adult male dog connected to ambuvent prototyped medical ventilator. *Journal of Medical and Biological Engineering* with submission ID: JMBE-D-24-00095

Ahmed Issa, Rabiul Abdulrahman, **Isiaka Raheem**, Mohammed Jibril. Effect of Facebook-Based on Kwara State Colleges of Education Students' Performance in Educational Technology Concept. A manuscript submitted to the *International Journal of Innovation in Teaching and Learning (IJITL)*.

**Raheem, I. A.**, Fakomogbon, M. A., Adegun I. K, Alozie, N. S., Bello, S. A. Functionality and Usability Evaluations of the Locally Produced Internal-Combustion Engines Mock-Ups for Instructional Deliveries in Nigerian Schools. A manuscript ready to be submitted for publication in the International relevant journal.

**Raheem I. A.**, Fakomogbon M. A., Jimoh J. A., Abd-Elaziz A. A. & Issa A. I. Utilisation of Locally Produced Internal-Combustion Engine Mock-Ups: A Way Toward Sustainability of Students' Excellent Performance in Auto-Mechanical Work Subject. A manuscript ready to be submitted for publication in the International relevant journal.

**Raheem, I. A.**, Fakomogbon, M. A., Ogunlade O. O. & Falade A. A. Students' and Teachers' Reactions Towards Locally Produced Internal-Combustion Engine Mock-Ups Utilized for Teaching Auto Mechanical Works. A manuscript ready to be submitted for publication in the International relevant journal.

**Isiaka A. Raheem**, Olabisi A. Agbaoku, Tajudeen I. Sulaiman, Ganiyat P. Raheem-Folayinka. The Impact of an Improvised Alternating Current Generator on Students' Academic Performance in Basic Science and Technology in Lagos State Schools. A manuscript ready to be submitted for publication in the International relevant journal.

**Course Module Developed:**

Workshop Practice (PHS 226) Module developed for Distance Learning Institute (DLI), University of Lagos. The module's contents involved (i) general safety in the workshop, (ii) hazards and ways of controlling hazards in the workshop, (iii) safety signs, (iv) health and safety equipment in the workshop, (v) metalworking tools; metal joining processes, (vi) woodworking tools, (vii) wood joining methods, (viii) wood defects, and (ix) maintenance and fabrication of the Physics apparatus.

**CONFERENCES/GUEST LECTURES/WORKSHOPS**

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**Oral and Poster Conference and Competitions Papers:**

Johnson, L., Childers, G., Hite, R., Marr, N., **Raheem, I.**, Wekullo, B., Gottlieb, J., Stevens, T. Williams, B., Higgins, R., & Hendrick, R. (submitted, 2024, July 15-17). Relatedness and social connections: Motivational factors influencing resiliency in Noyce Scholars. [Poster Presentation]. 2024 Noyce Summit, Washington, DC, United States.

**Raheem, I. A.** (2024). Design and Utilization of Automotive Engine Models as Interactive Technology to Motivate Students' Learning. Being an idea presented in the Red Raider Idea Competition 2024 and emerged as a Top 10 finalist.

Olaniyi, R. & **Raheem, I. A.** (2024). Intelligence for Students' Relationship Management (SRM). Being an idea presented in the Red Raider Idea Competition 2024 and emerged as a Top 10 finalist.

**Raheem, I. A.** (2024). Presentation of Innovation Idea titled "Design and Utilization of Automotive Engine

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Models as Interactive Technology to Motivate Students' Learning" to the Department of Curriculum & Instruction members of staff at their Department Meeting held on March 29<sup>th</sup>, 2024.

- Veronica F.T. Babajide, **Isiaka. A. Raheem** & Abdulkarim Abdulsalam (2024). Exploiting the Electrolysis Industry for Sustainable Climate and National Economic Growth: Exploring the Science Classroom Privileges. A paper co-presented at the 11th International Conference on African Development Aid & Economic Transformation, Faculty of Education, University of Lagos, between 14<sup>th</sup> – 15<sup>th</sup> March 2024.
- Afolabi, A. & **Raheem, I. A.** (2024). Professional Development as a method to boost teachers' self-efficacy. A paper co-presented at the 2024 EGSO Education Research Conference, College of Education, Texas Tech University, Texas between March 1<sup>st</sup> and 2<sup>nd</sup>, 2024.
- Raheem, I. A.** Fakomogbon, M. A., Adegun I. K, Alozie, N. S. & Bello, S. A. (2018, August). Utilization of Resources in Nigeria: An Opportunity for Sustainable Production of Internal-Combustion Engine Mock-Ups Towards Instructional Delivery. A paper co-presented at the 13<sup>th</sup> Annual Research Conference and Fair of the University of Lagos, University of Lagos between 28<sup>th</sup> and 30<sup>th</sup> August 2018.
- Raheem, I. A.**, Fakomogbon M. A., Jimoh J. A., Abd-Elaziz A. A. & Issa A. I. (2018, August). Utilisation of Locally Produced Internal-Combustion Engine Mock-Ups: A Way Toward Sustainability of Students' Excellent Performance in Auto-Mechanical Work Subject. A paper co-presented at the 13<sup>th</sup> Annual Research Conference and Fair of the University of Lagos at the University of Lagos between 28<sup>th</sup> and 30<sup>th</sup> August 2018.
- Raheem, I. A.**, Fakomogbon, M. A., Ogunlade O. O. & Falade A. A. (2018, August). Students and Teachers Reactions Towards Locally Produced Internal-Combustion Engine Mock-Ups Utilised for Teaching Auto Mechanical Works. A paper co-presented at the 13<sup>th</sup> Annual Research Conference and Fair of the University of Lagos at the University of Lagos between 28<sup>th</sup> and 30<sup>th</sup> August 2018.
- Ogunleye, A. O. & **Raheem, I. A.** (2017, August). Facilitating Effective Teaching and Learning of Physics using Innovative Technologies and Local Content Improvisation for Optimal Students' Achievement. A paper co-presented at the 12<sup>th</sup> Annual Research Conference and Fair of the University of Lagos at the University of Lagos between 15<sup>th</sup> and 17<sup>th</sup> August 2017.
- Soetan, A.K., **Raheem, I. A.** & Arowolo, J. A. (2017, July). Influence of Social-Media on Undergraduate Students Academic Performance in University of Ilorin, Kwara State. A paper 1<sup>st</sup> co-presented at the International Conference and Workshop of Association for Innovative Technology Integration in Education (AITIE) at the University of Ilorin, Ilorin, Kwara State between 24<sup>th</sup> and 28<sup>th</sup> July 2017.
- Johnson O. Agunsoye, Sefiu A. Bello, Adekunle A. Yekinni, **Isiaka A. Raheem** & Olumiyiwa Awe (2015, November). Effects of Reinforcement Particle Sizes on Mechanical Properties of Aluminium/Eggshell Composites. A paper co-presented at the 10<sup>th</sup> Annual Research Conference and Fair of the University of Lagos at the University of Lagos between 24<sup>th</sup> and 26<sup>th</sup> November 2015.
- Ogunleye, A. O. & **Raheem, I. A.** (2012, November). The Development and Production of Low-Cost Improvised Mobile-Micro Science Apparatus and Kits. A paper co-presented at the University of Lagos Golden Jubilee Research Conference and Fair at the University of Lagos between 6<sup>th</sup> and 8<sup>th</sup> November 2012.
- Ogunleye, A. O. & **Raheem, I. A.** (2011, October). The Development and Production of Low-Cost Improvised Mobile-Micro Science Apparatus and Kits. A paper co-presented at the 7<sup>th</sup> Annual Research Conference and Fair of the University of Lagos (an International Conference of the Sciences and Humanities), between 19<sup>th</sup> – 21<sup>st</sup> October 2011 at the University of Lagos, Lagos State.
- Adenle, S. O. & **Raheem, Isiaka A.** (2010, October). Utilization of Vocational and Technical Education for Youth Empowerment: A Way to Nigeria Technological Development. A paper co-presented at the 23<sup>rd</sup> Annual National Conference of Nigerian Association of Teachers of Technology (NATT) at the University of Uyo, Uyo, Akwa-Ibom State between 19<sup>th</sup> and 21<sup>st</sup> October 2010.
- Raheem, Isiaka A.** (2007, April). Managing the Declining Enrolment in Technical Education: A Trainer's perspective. A paper presented at the 3<sup>rd</sup> National Conference organized by the School of Science Education, Federal College of Education (Tech). Akoka, Lagos.

**STEM Projects Exhibition Fair and Clinical Trials events:**

Raheem, I. A., Wekullo, B., Afolabi, A., Daramola, O., Rabi, F., Ham, K., Montano Ramos, R., & Kayode Ufomanefe (2023, November 13). Generating Electricity from Saltwater and Potatoes – TTU STEM CORE Family Science Night. [Community Workshop]. TTU STEM Core Family Science Night, Lubbock, Texas, United States.

Cinema & Education (CiEd) Evenings. Exploring Education Through Movies and Cinema Education (The Wave, Die Welle, 2008). Organized by Dr. Basdogan Merve at the College of Education (Room 257), Texas Tech University on October 27, 2023

The Solar Eclipse Watch Party at the Museum of Texas Tech University on October 14, 2023. I attended as one of the volunteers who guided more than 1,800 attendees to the event.

The Tech Savvy one-day STEM conference is on October 7, 2023. I attended as one of the volunteers who guided a set of program attendees to the College of Education at Texas Tech University.

Clinical Trials of the Prototyped LASRIC Funded AMBUVENT Ventilator at the Department of Physiology, College of Medicine, Idi-Araba, University of Lagos between 27<sup>th</sup> June 2022 and 5<sup>th</sup> July 2022.

52<sup>nd</sup> UNILAG Convocation Ceremonies Exhibition at the Senate Car Park, University of Lagos between 12<sup>th</sup> and 21<sup>st</sup> January 2022. Projects Exhibited were (i) Solar Powered Neonate Phototherapy Device Station. (NG/P/2019/000099), and (ii) Solar Powered Flood Detector Device (NG/P/2018/14).

The Nigerian Content Development and Monitoring Board (NCDMB) Research & Development Fair and Conference at the Yenagoa, Bayelsa State on Thursday 9<sup>th</sup> September 2021. Project Exhibited was Solar Powered Flood Detector Device (NG/P/2018/14).

51<sup>st</sup> UNILAG Convocation Ceremonies Exhibition at the Senate Car Park, University of Lagos between 5<sup>th</sup> and 8<sup>th</sup> July 2021. Projects Exhibited were (i) A Low-cost Rapidly Deployable Synchronous Two-motor Ambu-Ventilator for Patients in Respiratory Distress. (Federal Republic of Nigeria. (NG/PT/NC/2020/4592), (ii) Solar Powered Neonate Phototherapy Device Station. (NG/P/2019/000099), and (iii) Solar Powered Flood Detector Device (NG/P/2018/14).

50<sup>th</sup> UNILAG Convocation Ceremonies Exhibition at the Senate Car Park, University of Lagos between 1<sup>st</sup> and 4<sup>th</sup> April 2019. Projects Exhibited were (i) Solar Powered Neonate Phototherapy Device Station. (NG/P/2019/000099), and (ii) Solar Powered Flood Detector Device (NG/P/2018/14).

Science, Technology and Innovation Expo 2020 at Eagle Square, Abuja between 16<sup>th</sup> and 20<sup>th</sup> March 2020. Projects Exhibited were (i) Solar Powered Neonate Phototherapy Device Station. (NG/P/2019/000099), (ii) Solar Powered Flood Detector Device (NG/P/2018/14).

1<sup>st</sup> Scientific Conference of The Nigerian Academy of Science at the Jelili Omotola Halls, University of Lagos between 4<sup>th</sup> and 5<sup>th</sup> February 2020. Projects Exhibited were (i) Solar Powered Neonate Phototherapy Device Station. (NG/P/2019/000099), (ii) Solar Powered Flood Detector Device (NG/P/2018/14).

“Art of Technology Lagos 1.0”. EKO Innovation Centre was organized by the Lagos State Government at the Oriental Hotel, Victoria Island, Lagos State between 5<sup>th</sup> and 6<sup>th</sup> December 2019. Projects Exhibited were Solar Powered Neonate Phototherapy Device Station. (NG/P/2019/000099), (ii) Solar Powered Flood Detector Device (NG/P/2018/14).

14<sup>th</sup> Annual Research Conference and Fair of the University of Lagos at the Jelili Omotola Halls, University of Lagos between 21<sup>st</sup> and 23<sup>rd</sup> August 2019. Projects Exhibited were (i) Solar Powered Neonate Phototherapy Device Station. (NG/P/2019/000099), (ii) Solar Powered Flood Detector Device (NG/P/2018/14).

Nigerian University Commission (NUC) At 50+1 Anniversary Research and Development Exhibition at the

Nigerian University Commission Secretariat, Abuja between 9<sup>th</sup> and 13<sup>th</sup> December 2013. Project Exhibited was Sets of Locally Produced Science and Technology Improvised Apparatus and Kits.

**Workshops/Training Attended:**

LEWA 2024 Summer Writing Retreat coordinated by Dr. Lesley Mellinee at the Department of Curriculum and Instruction, Texas Tech University between June 3 – 7, 2024.

How to Recognize Plagiarism: Advanced Level Certificate for Master's and Doctoral Students. Organized by Indiana University Bloomington. Unique Test ID: 5882472923964201178 for ISIAKA (PhD).  
<https://plagiarism.iu.edu/index.html>

Equal Employment Opportunity Non-Discrimination and Sexual (EEO), Title IX, The Clergy Act, and Ethical Conduct Compliance Training Certificate on November 18, 2023, and sponsored by Texas Tech University.

Human Subjects TTU Biomedical Investigators (Basic/Refresher) conducted by the CITI Program on October 1<sup>st</sup>, 2023, and sponsored by Texas Tech University.

Social and Behavioral Responsible Scholarship Course conducted by the CITI Program on October 1<sup>st</sup>, 2023, and sponsored by Texas Tech University.

Responsible Conduct of Research (Plagiarism Education Course) conducted by the CITI Program on June 26<sup>th</sup>, 2023, and sponsored by Texas Tech University Graduate School.

Item Writing Workshop for WASCE organized by the West African Examinations Council between 26<sup>th</sup> and 29<sup>th</sup> September 2022 at the Food Union Hotels and Suites, Sabo-Ojodu, Lagos State.

3D Printing Sensitization Training Organized by NITDA IT Hub, CITS and AAA Amalgamated Ltd at the NITDA IT Hub, University of Lagos on 16<sup>th</sup> June 2021.

Printed Circuit Board (PCB) and 3D Printing Training at the National Information Technology Development Agency (NITDA) Intervention Project, University of Lagos between 28<sup>th</sup> Sept. and 2<sup>nd</sup> October 2020.

Train the Trainers Program. A 3-Day Workshop on Global Teaching Best Practices for Faculties of Engineering, Science and Environmental Science Lecturers at Lab 101 and 102, Centre for Information Technology and Systems (CITS), University of Lagos between Jan. 28<sup>th</sup> and 30<sup>th</sup>, 2020.

Training on Operations and Programming of Computer Numerical Control (CNC) Lathe Machine at Physics Workshop, Department of Physics, University of Lagos between 17<sup>th</sup> and 21<sup>st</sup> September 2018.

Workshop on Teaching Practice Supervision for Sandwich 2017 Teaching Practice Supervisors at Faculty of Education, University of Ilorin on 6<sup>th</sup> December 2016.

Workshop on Learning Management System (Hands-On) for facilitators and E-Tutors at the Distance Learning Institute (DLI), University of Lagos on 31<sup>st</sup> May 2016.

Advanced Occupational Safety and Health Course Training at the Physics Department, University of Lagos between 9<sup>th</sup> and 10<sup>th</sup> October 2015.

Specialized Training Workshop on Maintenance, Repairs, Calibration and Testing at the NISLT National Secretariat, Ibadan, Oyo State, Nigeria between 12<sup>th</sup> and 18<sup>th</sup> October 2014.

Seminar on Solid Waste Management: Promoting Environmentally Sound Disposal and 3R" organized by the University of Lagos in collaboration with the Embassy of Japan in Nigeria held on Wednesday 20<sup>th</sup> November 2013, at the Julius Berger Hall, Akoka.

A Training Workshop on Open Distance Learning Pedagogy and ICT at the Distance Learning Institute (DLI), University of Lagos on 5<sup>th</sup> June 2012.

General Health and Safety Environment Training at the NERDC Hotel, Ikeja, Lagos state between 14<sup>th</sup> and 18<sup>th</sup> February 2011.

Computer and Information Technology Literacy Training at the CITS, University of Lagos between 13<sup>th</sup> and 24<sup>th</sup> June 2009.

Apprenticeship Training in Machine Shop Practice at the S. Ganiyu Technical Engineering Works between



29<sup>th</sup> June and 29<sup>th</sup> September 2009.

**Invited Talks/Webinars:**

Raheem, I. A. (2021, November 11). After Secondary School Education, What Next? A Valedictory Speech delivered at the Jubril Martin Memorial Grammar School, Iponri, Lagos State.

Raheem, I. A. (2008, March). Maintenance of Two and Four Strokes Petrol Engine. A paper presented at a 3-Days Training Workshop organized by the National Association of Engineering Craftsmen (NAEC) on Diesel/ Petrol Engines, Generator Plant Maintenance and Mechatronic at the University of Lagos, Akoka, between 19<sup>th</sup> – 21<sup>st</sup> March 2008.

Raheem, I. A. (2008, May). Maintenance of Automobiles. A paper presented at a 3-Days Specialist Workshop on Maintenance of Vehicles and Generator Plants organized by The Nigerian Society of Engineering Technicians (NASET) at Yaba College of Technology, Yaba-Lagos, between 28<sup>th</sup> – 30<sup>th</sup> May 2008.

**TEACHING/MENTORING**

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2005 - 2023 **Graduate Course: University of Lagos**  
PHS 804: Instrumentation

2005 - Present **Undergraduate Course: University of Lagos**  
PHS 226/362: Workshop Practice

**SERVICE**

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**University Service**

2024 – Present Member, Noyce Research Group, Department of Curriculum and Instruction, Texas Tech University.

2020 - Present Member, University of Lagos - Ventilator Team

2019 - 2020 Member, University of Lagos Solar Cubicle Project

2012 - 2023 Member, Accreditation Committee of the Department of Physics, University of Lagos.

2012 - 2023 Member, Physics Workshop Committee of the Department of Physics, University of Lagos.

2012 - 2023 Member, Maintenance Committee of the Department of Physics, University of Lagos.

**Academic and Professional Societies**

2024 – Present Member of the International Technology and Engineering Educators Association (ITEEA).

2023 - Present Member of the American Educational Research Association (AERA).

2023 - Present Member of the Society for Advancing Chicanos/Hispanics and Native Americans in Science (SACNAS).

2018 - Present Member of the Teachers Registration Council of Nigeria (TRCN) (LA/T/00966).

2017 - Present Member of the Association for Innovative Technology Integration in Education (AITIE).

2013 - Present Member Nigerian Institution of Metallurgical, Mining and Materials Engineers (An Institution of the Nigerian Society of Engineers) (M261).

2004 - Present Member of the Technology Education Practitioners Association of Nigeria (TEPAN) (NATT/M2004/37).

## **GRANTS/FELLOWSHIPS/SCHOLARSHIPS**

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### ***Fellowships and Scholarships Awards***

- Spring 2024 A Top 10 finalist in the Red Raider Idea Competition 2024.
- Spring 2024 J.T. and Margaret Talkington Graduate Fellowship at Texas Tech University (TTU) (\$2,000).
- Spring 2024 TTU Global PRiSE End EDUC Scholarship (\$300).
- Spring 2024 TTU Pres. Doc. Ex RA 12-13 (\$304).
- Fall 2023 J.T. and Margaret Talkington Graduate Fellowship at Texas Tech University (TTU) (\$2,000) [https://www.depts.ttu.edu/gradschool/financial/award\\_recipients/recruitment\\_fellowships.php](https://www.depts.ttu.edu/gradschool/financial/award_recipients/recruitment_fellowships.php)
- 2023 - 2028 STEM Dean's Cohort PhD. program award in the Department of Curriculum and Instruction, College of Education, Texas Tech University (TTU) for Fall 2023-2028. <https://unilag.edu.ng/?p=19670>, <https://www.thisdaylive.com/index.php/2023/03/01/unilag-dons-win-world-lung-health-fellowship-doctoral-programme-awards>, <https://www.nuc.edu.ng/wp-content/uploads/2023/03/13th-March-2023-MB.pdf>
- Fall 2023 TTU David & Gaylan Cobb scholarship in the College of Education for the Fall 2023 Semester (\$500).
- Fall 2023 TTU Pres. Doc. Ex RA 12-13 (\$304).
- 2018 - 2019 Doctoral Assistance Grant awarded by the University of Lagos, Nigeria in December 2018 (₦500,000 naira).
- 2017 - 2018 Doctoral Scholarship awarded by the University of Lagos Muslim Alumni (UMA) in May 2017 (₦150,000 naira).
- 2018 - 2019 Doctoral Scholarship awarded by the University of Lagos Muslim Alumni (UMA) in June 2018 (₦150,000).

### ***Research Conference and Fair Awards***

- 2018 Co-recipient, Best Researcher of the Year for the Faculty of Science at the 13<sup>th</sup> Annual Research Conference and Fair of the University of Lagos, for the paper jointly presented by: Onyekachi, U.K., Buraimoh, O.M., Olusola, O. I., Kudehinbu N.A., **Raheem, I.A.**, and Ogundipe, O.T. (2018). Bioconversion of organic wastes for sustainable biogas production using locally sourced materials.
- 2018 Co-recipient, 3<sup>rd</sup> Researcher's Position of the Year for the Faculty of Science at the 13<sup>th</sup> Annual Research Conference and Fair of the University of Lagos, for the paper jointly presented by: **Raheem, I. A.**, Fakomogbon M. A., Jimoh J. A., Abd-Elaziz A. A., and Issa A. (2018, August). Utilisation of Locally Produced Internal-Combustion Engine Mock-Ups: A Way Toward Sustainability of Students' Excellent Performance in Auto-Mechanical Work Subject.
- 2015 Co-recipient, 2<sup>nd</sup> Researcher's Position of the Year for the Faculty of Engineering at the 10<sup>th</sup> Annual Research Conference and Fair of the University of Lagos, for the paper jointly presented by: Johnson O. Agunsoye, Sefiu A. Bello, Adekunle A. Yekinni, **Isiaka A. Raheem**, Olumiyiwa Awe (2015, November). Effects of Reinforcement Particle Sizes on Mechanical Properties of Aluminium/Eggshell Composites.

***Isiaka A. Raheem CV***

- 2012 Co-recipient, 3<sup>rd</sup> Researcher's Position of the Year for the Faculty of Education at the University of Lagos Golden Jubilee Research Conference and Fair, for the paper jointly presented by: Ogunleye, A. O. and **Raheem, I. A.** (2012, November). The Development and Production of Low-Cost Improvised Mobile-Micro Science Apparatus and Kits.
- 2011 Co-recipient, Best Researcher of the Year for the Faculty of Education at the 7<sup>th</sup> Annual Research Conference and Fair of the University of Lagos, for the paper jointly presented by: Ogunleye, A. O. and **Raheem, I. A.** (2011, October). The Development and Production of Low-Cost Improvised Mobile-Micro Science Apparatus and Kits.

**Associated Academic Research Groups:**

- 2020 - Present UNILAG Ventilator Group, led by Prof. M.O.H. Amuda, Department of Metallurgical and Materials Engineering, Faculty of Engineering, University of Lagos.
- 2017 - Present Innovated Research Cluster, led by Dr. U.I. Oduah, Department of Physics, Faculty of Science, University of Lagos.
- 2018 - Present Environmental Biotechnology and Ecotoxicology Research Group, led by Dr. (Mrs.) O.M. Buraimoh, Department of Microbiology, Faculty of Science, University of Lagos.
- 2019 - Present Industrial Chemical Processes Research Group, led by Dr. F.O. Agunbiade, Department of Chemistry, Faculty of Science, University of Lagos.

**External Examiner:**

- 2018 – 2023 Examination Questions Items Setter and Moderator (Metalwork, Welding and Fabrication Engineering Craft) for the West African Examination Council (WAEC).

**Media program attended, Industrial and Humanitarian visitations:**

"Voyage of Discovery". An NUC-sponsored Television Documentary Program for Nigerian Universities to celebrate outstanding researchers, showcase their findings and promote their linkage with the industry aired on Nigerian Television Authority (NTA) between 1:30 – 2:00pm on Mondays 19<sup>th</sup> and 26<sup>th</sup> of May 2014; and on Monday 18<sup>th</sup> of May, and 28<sup>th</sup> of September 2015. Also aired on African Independent Television (AIT) between 4:30 – 5:00pm on Tuesdays 20<sup>th</sup> and 27<sup>th</sup> of May 2014; and on Monday 19<sup>th</sup> of May, and 29<sup>th</sup> of September 2015.

Research in Motion Program at UNILAG Radio (103.1fm) between 11 am and 12 pm on 6<sup>th</sup> August 2013 as a co-Guest Researcher with Late Prof. Ogunleye.

Industrial visit to Dangote Cement Plant, Ibese, Ogun State. Organized by the Nigerian Society of Engineers (Metallurgy, Mining and Materials Division) on 30<sup>th</sup> September 2013.

Industrial visit to Nigerian Foundry Limited, Ilupeju Industrial Estate, Lagos. Organized by Metallurgical and Materials Engineering Department, University of Lagos on 24<sup>th</sup> May 2012.

A-day visit to Kirikiri Medium Prison. Organized by the University of Lagos Muslim Community on the 6<sup>th</sup> December 2018.

**Details of studentship administrative experiences:**

Graduate Representative, SACNAS STEM Student Ambassador Organization at Texas Tech University between 2024 and 2025 academic sessions.

Vice President, SACNAS STEM Student Ambassador Organization at Texas Tech University between 2023 and 2024 academic sessions.

Graduate Student affiliate of the STEM Center for Outreach, Research and Education (CORE) at Texas Tech University.

Public Relations Officer, Nigeria Students Association at Texas Tech University between 2023 and 2024 academic sessions.

Class Representative, Metallurgical and Materials Engineering PGD Students at the University of Lagos between 2011 and 2014 academic sessions.

President, Osun State Students Association at the Federal College of Education (Tech.), Akoka between 2000 and 2001 academic sessions.

Coordinator, Muslim Association School of Technical at the Federal College of Education (Tech.), Akoka between 2000 and 2001 academic sessions.

Academic Director, Mechanical Education Students Association at the Federal College of Education (Tech.), Akoka between 1999 and 2001 academic sessions.

Treasurer, Osun State Students Association at the Federal College of Education (Tech.), Akoka 2000 academic sessions.

School Librarian, Community High School, Ile-Ogbo, 1993/1994 academic sessions

### **Global Technical Skills:**

**Conducting Reliable Research:** Having undergone through the University of Ilorin Doctoral Ethical Review, Research Protocol and Registration of Title committees without any disqualifications and for developing a thesis that is most appropriate with international standards. Ability to teach and carry out research at any Educational Institutions, Research and Development Centers.

**Soft-Skills Expert:** Expert in using Moodle Learning Management System (LMS) for instructional activities; Computer for Data Analysis (SPSS & MS Excel); Design & Draft with CAD Software (Basic skills); Setting of Examination Questions with ExamViews and Moodle XML Builder Software; Internet Surfing and Information Retrievals; and Report Writing.

**Manufacturing Processes Expert:** Proficiency in project production with Additive, Subtractive and Forming Manufacturing Machines such as 3D Printer (Basic skills), CNC Lathes (Basic skills), Center Lathe, Drilling, Shaping, Milling, Grinding, Sawing, Guillotine, Welding, Forge, Furnace, and Bending Machines.

**Health and Safety Environment Expert:** Expert in maintenance, health and safety of Research Workshops and Laboratories.

**Excellent in mentoring and cordial relationships:** Ability to mentor the young generation toward self-reliance and innovative development of lucrative skills and knowledge over sixteen years as a staff at the University of Lagos and the University of Ilorin during my Doctoral Degree program. Also, I have the potential to work in a multicultural environment by establishing harmonious and effective working relationships with others.

### **Research interests:**

- ❖ Design, Development, Utilization and Maintenance of Instructional Materials and Projects' Prototypes.
- ❖ Processing and Recycling of Engineering Materials.
- ❖ Research Methods, Instructional Technology and Distance Education.

### **LANGUAGES**

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English and Yoruba (Fluently)

*Isiaka A. Raheem CV*

**REFERENCES**

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**Jeong-Hee Kim, Ph.D. (she, her, hers)**

Chair, Department of Curriculum and Instruction  
Professor of Curriculum Studies and Teacher Education  
College of Education, Texas Tech University  
Education Building #104A

[jeong-hee.kim@ttu.edu](mailto:jeong-hee.kim@ttu.edu)

3008 18th St. Lubbock, Texas 79409-1071

Phone: 806-834-6075 (Office) | 806-742-2179 (Fax)

[http://www.depts.ttu.edu/education/our-people/Faculty/jeong\\_hee\\_kim.php](http://www.depts.ttu.edu/education/our-people/Faculty/jeong_hee_kim.php)

**Faith Maina, Ph.D. (she/her/hers)**

Professor of Curriculum and Instruction  
College of Education, Room #361

Texas Tech University

Box 41071 | Lubbock, TX 79409-1071

Email: [faith.maina@ttu.edu](mailto:faith.maina@ttu.edu)

Phone: 806.834.7808

**Rebecca Hite, Ph.D. (she/her/hers)**

Associate Professor, Associate Department Chair  
Curriculum & Instruction

College of Education, Room #264

Texas Tech University

Box 41071 | Lubbock, TX 79409-1071

Email: [Rebecca.hite@ttu.edu](mailto:Rebecca.hite@ttu.edu)

Phone: 806.834.6370

**Gina Childers Ph.D. (she/her/hers)**

TTU COE STEM Education Program Coordinator

Assistant Professor of STEM Education

Curriculum and Instruction

College of Education, Room #268

Texas Tech University

Box 41071 | Lubbock, TX 79409-1071

Email: [Gina.Childers@ttu.edu](mailto:Gina.Childers@ttu.edu)

Phone: 806.834.7313