

Daha Shehu ALIYU

DEPARTMENT OF CIVIL ENGINEERING
SCHOOL OF ENGINEERING,
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Phone No: +44(0)7774140047
Date of Birth: 04th May 1985
State of Origin: Kano, Nigeria

Home Address: 269 Stanton Street, Newcastle upon Tyne, NE4 5LJ, United Kingdom. Nigeria

Address: No. 1677 Kurna Asabe C, Dala Local Government Kano, Kano State, Nigeria.

Profile

▪ Hold **PhD. Structural Engineering from Newcastle University, United Kingdom, B.Eng. Civil** from Kano University of Science and Technology, Wudil and **MEng** in Structural Engineering from Sharda University, Greater Noida, India.

PhD research area focuses on the Performance of cement paste with polypropylene fibre and powder at high temperature.

▪ Specialized in Design and analysis of concrete structures, Seismic control, Analysis and design of timber structures and Prestress concrete.

Self-motivated individual with strong creative, analytical and development skills, and an interest in innovation, manufacturing, and research engineering. Excellent interpersonal skills with the ability to work alone or in a team.

Area of Specialization: Analysis and Design of tall structures, Design of Bridge structures, Design of prestress concrete structures, Analysis and design of Foundation, Fire concrete design.

Education/academic qualifications

2019 – 2024 Newcastle University, United Kingdom

▪ **PhD. Civil (Structural) Engineering**

Research Topic: *Performance of Cement Paste with Polypropylene Fibre and Powder at High Temperature*. The research focuses on enhancing the performance of cement paste by using ultraviolet light treatment on polypropylene to reduce the impact of fire on concrete structures.

2014 - 2015 Sharda University, Greater Noida, Utter predish, India

▪ **MTech. Civil Engineering (Structural Engineering Option)**

Research Topic: *Comparative Study of Elastic and Plastic analysi of Indian Steel Member Subjected to Fire using SAFIR and Ansys Software*.

2006 - 2011 – Kano University of Science and Technology, Wudil, Kano, Nigeria

▪ **B.Eng. Civil Engineering**

Research Topic: *Computer Aided Analysis and Design of Cantilever Retaining Wall*.

Additional Education/Training

1. Diploma in Project and Construction Management, Bridge institute of management and Engineering, Delhi, India, July,2014- April,2015
2. Certificate in STAAD Pro, Sai Ram Computer Center, Gamma I Greater Noida UP- India. 15thMarch to 17th April, 2015
3. Certificate in Revit Architect., Sai Ram Computer Center, Gamma I Greater Noida UP- India. 15thMarch to 17th April, 2015
4. National Qualification Certificate, in Understanding Stewarding at Spectator Events, with Industry Qualifications. August 2019.
5. NCFE Level 1 award in Interpersonal Skills with NCFE. August 2019
6. Certificate in Immediate Life Support (ILS) with Primary Care Recruitment agency. May 2019
7. Introduction to Learning and Teaching (Seminar), Newcastle University, March 2019
8. Introduction to Learning and Teaching (Demonstrator), Newcastle University, June 2019

Additional Online Education/Module/Webinar

1. Certificate of Participation on Artificial Intelligence in business models – Applications and Research Directions. By Department of research and publication, A2Z EdulearningHub LLP. 19th May 2022.
2. Certificate of Participation on Impact of automation and control system of building and industry on energy conservation. By IEEE and PES. 6th May 2022.
3. Certificate of Participation of international webinar on Strengthening research ethics using plagiarism tools. By Universitas Gadjah Mada, Jakarta. 31st March 2022.
4. Certificate of Participation on Redefining Social Responsibility and Ethical Leadership, Center for Management Studies, JAIN University, 2nd to 10th, August 2021.
5. Certificate of Participation on Redefining Social Responsibility and Ethical Leadership, By Center for Management Studies, JAIN University, 2nd to 10th, August 2021.
6. Certificate of participation on Water Security for Cities through Urban Water Management, By Department of Humanities and Applied Science and Civil Engineering, Manda Institute of Technology, Bikaner, April 2021
7. Certificate of Participation on Planning and Drafting of Approval Drawing, By Department of Civil Engineering, Kings Collage of Engineering, Punalkulam. March 2021
8. Certificate of Participation on Financial Empowerment through Financial Awareness, By S.S. Jain Subodh P.G. (Autonomous) Collage, Jaipur, Rajasthan in collaboration with Association of Mutual Funds in India, January 2021
9. Certificate of Participation on Sustainable Business Management Practices and Social Innovation, By Student Research and Development Cell, Center for Management Studies, JAIN University, January 2021.
10. Certificate of Participation on Decoding Entrepreneurship, By School of Management Studies Sathyabama Institute of Science and Technology in collaboration with Tamilnadu Advanced Technical Training Institute, December 2020
11. Certificate of Attendance on “Getting the Most out of Scopus” Researcher Academy Elsevier at Newcastle University, 2nd December 2020.

12. Certificate of completion on “Innovation in Concrete Construction” Civil Engineering Department at Gandhinagar Institute of Technology. November 2020
13. Certificate on Artificial Intelligence Myth and Realities, By Maths Aspirant WhatsApp Groups, Career Development Centre Perambra, Kozhikoda, Kerala, November 2020
14. Certificate of Participating on Magnetic Adsorbent and their Applications in Wastewater Treatment and Metals Recovery, By Mineral Resources Management Research and Training Center, Caraga State University, Philippines, October 2020.
15. Certificate of Attendance on “Aligning Yourself to the Publishing Process” Researcher Academy Elsevier, 23rd and 24th July 2020.
16. Certificate of Completion on “Standing up for Science” Researcher Academy Elsevier 31 March 2020.
17. Certificate of Completion on “Using Proper Manuscript Language” Researcher Academy Elsevier, 11 March 2018.
18. Certificate of Completion on “How to turn your thesis into an article” Researcher Academy Elsevier, 23 February 2018.
19. Certificate of Completion on “How researcher benefit from citing data” Researcher Academy Elsevier, 23 February 2018.

Professional Experience

April 2016 to Date

Lecturer II, Kano University of Science and Technology, Wudil, Kano State

- Lecturing undergraduate civil Engineering courses
- Supervision of undergraduate project

August 2013 – April 2016

Civil Engineer I, Kano State Housing Corporation, Zaria Road, Kano, Nigeria

- Responsible for supervision of construction of houses under Kano State Government

February 2011 – June 2012

Site Engineer, Ciroco Nigeria Limited, Kano State, Nigeria

- Responsible for coordinating and supervision of additional class room in primary school in Kano state constructed by Japan Government

June 2009 – December 2009

Site Engineer, SKY Construction Nigeria Limited, Kano, Nigeria

- Assist in supervision of Road construction along Tarauni market, Kano State.

June 2008 – September 2008

Site Engineer, SKY Construction Nigeria Limited, Kano, Nigeria

- Assist in supervision of Kwanar Dawaki to Dawakin Kudu Local Government, Kano State.

Major Skills & Achievements

- Proficiency in the use of Microsoft Office (Word, PowerPoint, Excel), Sigma Plot.

- Design a software the can Design and analysed a cantilever retaining wall (2010).
- Won second Best graduating student at Kano University of science and Technology, at the Department of Civil Engineering (2011)

List of Publications

Theses/Dissertations/Project Reports

1. *Performance of Cement Paste with Polypropylene Fibre and Powder at High Temperature*. PhD thesis, Newcastle University, Newcastle upon Tyne, United Kingdom, 2023.
2. *Comparative Study of Elastic and Plastic analysi of Indian Steel Member Subjected to Fire using SAFIR and Ansys Software*. MTech Thesis Sharda University, Greater Noida, Utter predish, India, November 2015.
3. *Comparative Analysis and Design of an Industrial Steel building in STAAD Pro Using Indian code (IS800) and EUROCODE (EN1993:2005)*. MTech Design project, Sharda University, Greater Noida, Utter predish, India, 2015.
4. *Ductile Fracture of Steel under Monotonic and cyclic loading*. MTech Seminar, Sharda University, Greater Noida, Utter predish, India, 2015.
5. *Computer Aided Analysis and Design of Cantilever Retaining Wall*. BEng Research Project, Kano University of Science and Technology, Wudil, Kano, Nigeria. May 2011.

Journal Articles

1. **Daha Shehu Aliyu**; Mahmoud Murtala Farouq; Haruna Ibrahim; Chandra Kumar Dixit; Gnanel Muthu; Sathish Kumar Ramachandran; Ahmed Ravitheja. (2024) **“Influence of polymer 3D printing on the durability and thermal performances of infrastructural building”** AIP conference proceedings, Proceedings of the fourth international conference on advance in manufacturing technology (ICAMT2022) Volume 2937, 020026.
<https://doi.org/10.1063/5.0218105>
2. Ronald Migue; Hernandez Vasquez; Mahmoud Murtala Farouq; **Daha Shehu Aliyu**; Haruna Ibrahim; Vishnu Dinesh; A. N. Shankar (2024) **“A review on the effect of graphene nanostructures on the mechanical behaviour of cement composite”** AIP conference proceedings, Proceedings of the fourth international conference on advance in manufacturing technology (ICAMT2022) Volume 2937, 020027. <https://doi.org/10.1063/5.0218923>
3. A.N. hankar, Mahmoud Murtala Farouq, Francis Kwesi Bondinuba, Vinay Kumar Singh, **Daha Shehu Aliyu**, V.Y. Ganvir. 2022 **“Critical Review on the Impact of Nanotechnology in Concrete Materials”** Advances in Science and Technology. ISSN: 1662-0356, Vol. 117, pp 17-24

4. R. Raffik, Harish Sharma, **Daha Shehu Aliyu**, Francis Kwesi Bondinuba, Kannadasan B., Rabah Mahmoud Ahmad Ismail. 2022 "Utilization of E-Waste as a Concrete Mixture for Infrastructural Buildings" Materials Science Forum. ISSN: 1662-9752, Vol. 1068, pp 47-53
5. **Daha Shehu Aliyu**, Salim Idris Malami, Faiz Habib Anwar, Mahmud Murtala Farouk, Muwaffaq Sufyan Labbo, S.I.Abba. "Prediction of compressive strength of lightweight concrete made with partially replaced cement by animal bone ash using artificial neural network" 2021 1st International Conference on Multidisciplinary Engineering and Applied Science (ICMEAS). (978-1-6654-3493-5/21/\$31.00 ©2021 IEEE) 2021
6. Abba, S.I., Pham, Q.B., Usman, A.G., Linnh, N.T.T., **Aliyu, D.S.**, Nguyen, Q. & Bach, Q.V. (2020) Emerging evolutionary algorithm integrated with kernel principal component analysis for modeling the performance of water treatment plant. Journal of water process Engineering. 33 (February), 101081
7. F. H. Anwar, S.I Malami, Z. B. Baba, M. M. Farouq, M.S.Labbo, **Daha S. Aliyu**, A.B. Umar, 2019 "Compressive Strength of Lightweight Concrete and Benefit of Partially Replacing Cement By Animal Bone Ash (ABA)" Journal of Emerging Technologies and Innovative Research ISSN-2349-5162, Volume-6 Issue-6 June 2019. 554-560
8. **Daha S. Aliyu**, Ma'aruf A, M. M. Farouq, S. U. Dawusu 2018 "Stabilization of Lateritic Soil Using Powdered Locust Bean Pod (MAKUBA)" International Journal of Engineering & Science Research. ISSN 2277-2685, Special Issue/ Article No-46/249-255
9. H Ibrahim, **Daha S. Aliyu**, Ma'aruf A, MM Farouq. 2018 "Ground-Borne Vibration Transmission on Structures (Effect and Control): A Review" International Journal of Engineering & Science Research, ISSN 2277-2685, Special Issue/ Article No-1/1-7
10. **Daha S. Aliyu**, M. M. Farouq, M. S. Labbo, F. H. Anwar, Z. B. Baba, M. U. Bayi. 2017 "Behavior of Reinforcement in Reinforced Concrete Beam Subjected to Fire on Tensile Strength" American Journal of Engineering Research. e-ISSN:2320-0847, P-ISSN:2320:0936, Volume-6, Issue-10, 2017. pp-163-171
11. M. M. Farouq, Umar. F. Lawan, Nura Garba F. H. Anwar, Z. B. Baba, M. S. Labbo, **Daha S. Aliyu**, 2017 "Implementation of Environmental Management System in Construction Industry" IOSR Journal of Mechanical and Civil Engineering (IOSR-IMCE). e-ISSN:2278-1684, P-ISSN:2320:334X, Volume-14, Issue-5, Ver. IV (Sep.-Oct. 2017), pp-33-38.
12. M. M. Farouq, F. H. Anwar, Z.B. Baba, M. S. Labbo, **D. S. Aliyu** "Road Maintenance Management in Kano State, Nigeria: Case Study of Kano Metropolitan" Journal of Mechanical and Civil Engineering. e-ISSN:2278-1684, p-ISSN:2320-334X, Volume 14, issue 3 Ver, III (May. – June 2017), PP 50-62.

13. **D. S. Aliyu**, Y. A. Abdu, D. A. Yusuf. 2016 "Transmission of ground vibration on roadside structures" European Journal of Advances in Engineering and Technology. Vol. No. 3(7) pp. 43- 46. (ISSN: 2394-658X).
14. **D. S. Aliyu**, H. Ibrahim, H. H. Ali. 2015 "Comparative study of Elastic and Plastic Analysis of Indian Steel members Subjected to fire using ANSY and SAFIR Software", International Journal of Advance Research in Science and Engineering. IJARSE Press, India. Vol. No. 4, pp. 175-185. (ISSN: 2319-8354).
15. H. Ibrahim, **D. S. Aliyu**, H. H. Ali. 2015 "Vibrational Control of frame structural frame using Tune mass Damper", International Journal of Advance Research in Science and Engineering. IJARSE Press, India. Vol. No. 4, pp. 186-196. (ISSN: 2319-8354).
16. **D. S. Aliyu**, H. M. Sabo. "Assessment of Ductile Fracture of Steel under Monotonic and Cyclic Loading", Journal of Civil Engineering and Environmental Technology. Print ISSN: 2349-8404; Online ISSN: 2349-879X; Volume 2, Number 12; pp. 93-95, Krishi Sanskriti Publications.

List of Conferences

1. Design for construction productivity Conference by Institute of structural engineering (IStructE) international headquarters, 47-58 Bastwick Street, London, EC1V 3PS.
2. Postgraduate research Conference by School of Engineering, Newcastle University, United Kingdom. Presentation title: The used of UV-treated polypropylene fibre in improving compressive strength of cement paste at high temperature. 2020/2021.
3. 2nd international conference on science, technology, and management" Organized by conference world at Delhi University, New Delhi, India. 27th September 2015
4. 7th international conference on Emerging Technology in "Civil Engineering, Architecture and Environmental Engineering for Global Sustainability" Organized by "Krishi Sanskriti" at Jawaharlal Nehru University, New Delhi, India. 4th – 5th April 2015.

List of Local Conferences and Workshops

1. Introduction to teaching and learning one day workshop – Demonstrator, at Newcastle University, June 14, 2019.
2. Introduction to teaching and learning one day workshop – Seminar, at Newcastle University, March 1, 2019
3. Research symposium and exposition (Ductile fracture of steel under cyclic loading). At Sharda University utter Pradesh, India. 28th March 2015

4. Workshop on “Patent, Intellectual Property Rights and Ethics” Conducted by School of Basic Science and Research, Sharda University, Greater Noida, India. March 2015.
5. Workshop on “Civil Design” Conducted at Cetpa Infotech Pvt. Ltd. Noida sector 15, India. 15th March 2015.
6. Workshop on “water treatment plant” organized by Delhi Jal Board, Government of India.
7. Workshop on “Monitoring of Concrete Structures- NDT Approach” on 3rd February 2015 held at Sharda University, Greater Noida. India.

Professional Membership/Certification

- Member, Institution of Structural Engineering (IStructE) Member ID. (082013179)
- Member Institute of Engineering and Technology (MIET) Member ID. (1101215502)
- Registered member of the council for the regulation of Engineers in Nigeria (COREN) Registration Number (R. 32,219)
- Registered member of the Nigerian Institute of Civil Engineering (NICE) Registration Number (C. 04676).
- Affiliated member American Society of Civil Engineering (ASCE). Membership ID (000011901311).
- Member Institute of Civil Engineering (ICE), Membership ID (2086911)
- Member of the International association of engineers (IAENG) with member ID 374109
- Member of the Universal Association of Civil, Structural, and Environmental Engineers (UACSE) with Membership ID AM10100058308 under Institute of Registered Doctors and Engineers (TheIRED).
- Open Research and Contributor ID, ORCID (0000-0002-9862-6962)

Teaching Experience

Teaching of undergraduate Civil Engineering courses which include:

1. Design of Structural Element III (CIV5404), 2015-2016
2. Engineer in Society I. (ENG2101), 2015-2016
3. Engineer in Society I. (ENG2101), 2016-2017
4. Engineer in Society I. (ENG2101), 2017-2018
5. Design of Structural Element I. (CIV3306), 2016-2017

Administrative Responsibility

1. Level Coordination of undergraduate student. 2016 to January 2019

Undergraduate Project Supervision

1. Behavior of reinforcement in reinforced concrete beam subjected to fire on tensile strength.

Student: Mustapha Umar Bayi (2017)

2. Stabilization of lateritic soil using powdered locust bean pod 'makuda'

Student: Surajo Umar Dawusu (2017)

3. Effect of Gamba Grass (Andropogon Gayanus) ashes in Concrete

Student: Sani Maitama (2017)

4. Performance of reclaimed asphalt pavement as partial replacement to coarse aggregate in concrete.

Student: Kabiru Imran (2017)

5. Performance of animal bone ashes and wood ashes as partial replacement of cement in concrete.

Student: Issa Abdulazeez Kayode (2018)

6. Appraisal of work breakdown structure (WBS) process in the success of planning and scheduling of road project in kano state.

Student: Muhammad Abubakar Suleiman (2018)

Position Held

1. Treasurer in national Association of Civil Engineering Student, Kano University of Science, and technology, Wudil chapter, 2008 – 2010
2. Site Engineer, Ciroco Nigeria Ltd, Sharada Phase II, February 2011 - June 2012.

Committee Membership

1. Member in Zumunta youth development association. Kurna Asabe, Dala Local Government, Kano State.

Appointment

1. Appointed as a Moderator by "National Board for Arabic and Islamic Studies" (NABAIS). Nigeria. May 2017.

Award

1. Petroleum Technology Development Found (PTDF) Scholarship, For PhD. January 2019 to date.
2. Kano State Scholarship award for master's degree, February 2014 to October 2015,
3. Student appreciation award for Level Coordination by Level 500 Student. January 2017.

Community Service

1. National Youth Service Corps, June 2011 – July 2012.

Hobbies

1. Travelling
2. Foot Ball
3. Reading

References

Dr. Colin Davie

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Prof. Sean Walkinson

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Engr. Prof. Abubakar Isma'il

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