

Academic Curriculum Vitae



Personal Information:

Full Name: Dillshad Khidhir Hamad Amen Bzeni

Academic Title: Asst. Professor

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Mobile: 07504486419



Education:

Ph.D Degree in Construction Material -awarded by the university of Baghdad-College of engineering

M.Sc degree in Advanced structural engineering awarded by Heriot Watt University-School of energy, geoscience, infrastructure and society

M.Sc degree in construction Material awarded by the university of Baghdad-College of engineering

B.Sc degree in civil engineering awarded by the University of Salahaddin-Erbil

Employment:

1992 to 1995 : M.Sc student -Civil Department-College of Engineering-University of Baghdad

1995 to 1997: Asst. Lecturer -Civil Department -College of Engineering-University of Salahaddin-Erbil

1997 to 2001: PhD Student-Civil Department -College of Engineering-University of Baghdad

2002 to 2004 : Lecturer-Civil Department -College of Engineering -University of Salahaddin -Erbil

2004 to 2006: Lecturer and Head of department -Software Department-College of Engineering-University of Salahaddin-Erbil

2006 to 2011: Lecturer-Civil Department -College of Engineering -University of Salahaddin -Erbil

2011-date: Asst. Professor-Civil Department -College of Engineering -University of Salahaddin -Erbil

Qualifications

Teaching qualification: I have experience teaching both undergraduate and postgraduate students more than 25 years

IT Qualification :

M.S Office: I am using M.S office (Word , Excell and Power Point) for my lectures seminars and researches

Matlab , Mathcad : I used MATLAB and Mathcad I am using these programs for the numerical analysis , Neural network and Image processing

ATINA , ADINA and LUSAS: I used these programs for the finite element analysis

Teaching experience:

Concrete Technology	Undergraduate
Construction Materials	Undergraduate
Foundation Math	Undergraduate
Calculus -I	Undergraduate
Engineering Analysis	Undergraduate
Concrete Construction Engineering	Undergraduate
Civil Drawing	Undergraduate
Composite Materials (Fiber cement and	Postgraduate
Concrete	
Ferrocement and laminated composites	Postgraduate
Structural Materials	Postgraduate
Numerical methods by Matlab	Postgraduate

Research and publications

1. [Experimental and numerical investigation of fiber-reinforced slag-based geopolymer precast tunnel lining segment](#)
Arass Omer Mawlod and Dillshad Khidhir Hamad Amen Bzeni
Structural Engineering and Mechanics , Vol 89, Issue,1 , Techno-Press,Ltd., 1/2024
2. [Mechanical Performance of Fiber-Reinforced Slag-Based Geopolymer Composite](#)
AO Mawlod, DKHA Bzeni , Practice Periodical on Structural Design and Construction 28 (3), 04023031
3. [Performance of Slag-Pumice-Based Alkali-Activated Mortar at Ambient Environment](#)AO
Mawlod, **DKHA Bzeni**, R Alzeebaree
Iranian Journal of Science and Technology, Transactions of Civil Engineering, 2023
2. [Bond strength evaluation of polymer modified cement mortar incorporated with polypropylene fibers](#)
PI Abdulrahman, DK Bzeni
Case Studies in Construction Materials 17, e01387, 2022
3. [Bond strength of deformed steel bars embedded in geopolymer concrete](#)
BO Mawlood, AH Mohammad, DK Bzeni
ADVANCES IN CONCRETE CONSTRUCTION 14 (5), 331-339, 2022
4. [Durability and fire-resistance performance of slag-based geopolymer composites](#)
AO Mawlod, DKHA Bzeni
Proceedings of the Institution of Civil Engineers-Engineering Sustainability, 2022
5. [Mechanical properties and load deflection relationship of polypropylene fiber reinforced self-compacting lightweight concrete](#)
D Altalabani, DKH Bzeni, S Linsel
Construction and Building Materials 252, 119084. 2020
6. [Rheological properties and strength of polypropylene fiber-reinforced self-compacting lightweight concrete produced with ground limestone](#)
D Altalabani, S Linsel, DKH Bzeni
Arabian Journal for Science and Engineering 45 (5), 4171-4185, 2020
7. [Properties of slag-based geopolymer pervious concrete for ambient curing condition](#)
O Arioiz, DKH Bzeni, RRA Zangy, E Arioiz
IOP Conference Series: Materials Science and Engineering 737 (1), 012068, 2020
8. [Fiber reinforced self-compacting lightweight concrete for the manufacture of floating structures](#)

D Altalabani, S Linsel, DKH Bzeni

ZANCO Journal of Pure and Applied Sciences 31 (s3), 204-209, 2019

9. [An Experimental Investigation into the factors affecting strength and flowability of geopolymer binder](#)

AS Jamal, DKH Bzeni, T Noguchi

Zanco Journal of Pure and Applied Sciences 31 (s3), 430-436, 2019

10. [Size and shape effects of testing specimens on the compressive strength of SCC](#)

SAY Dillshad K.H. Amen, Mohammad a. Ihsan

ZANCO Journal of Pure and Applied Sciences 30 (1), 65-72, 2018

11. [Effects of curing types on the strength of high Strength self-compacting concrete](#)

MAI Dillshad K.H. Amen¹ Sinan A. yaseen¹

ZANCO Journal of Pure and Applied Sciences 29, 22-29, 2017

12. [Strength estimation of concrete produced in kurdistan region using combined method](#)

DA Jaf, DK Bzeni, YZ Dinkha

ZANCO J. Pure Applied Sci 28 (2), 2016

13. [Comparative Analysis of the Rebound Hammer and Ultrasonic Pulse Velocity in Testing Concrete with Multi-Variation Equation](#)

R Abdulmajeed, N Hasan, D Amen

International Review 7 (6), 196-200, 2016

14. [Deflection hardening behaviour of jute strands reinforced lightweight cementitious composite](#)

KM Sadiq, DKH Bzeni, FUA Shaikh

Construction and Building Materials 96, 102-111, 2015

15. [Estimating strength of SCC using non-destructive combined method](#)

DKH Bzeni, MA Ihsan

3rd International Conference on Sustainable Construction Materials and, 201316. [Porosity, pore size distribution and permeability evaluation of porous concrete using image analysis](#)

DKHA Bzeni, R Rasheed, AH Mohammad

Concrete Structures for Sustainable Community-FIB symposium Stockholm -2012 ...

17. [Degree of hydration and strength development of low water-to-cement ratios in silica fume cement system](#)

DKH Amen, 2011

International Journal of Civil and Environment Engineering 11 (5), 10-16

18. [Study shrinkage behavior of SFRC restrained members exposed to hot climate](#)
DKH Amen, T Noguchi, 2009
19. [Prediction model for shrinkage-time relation of concrete under variable ambient conditions](#)
DKH Amen, RS Al-Rawi, 2006
International RILEM Workshop on Performance Based Evaluation and Indicators ...
20. [Prediction Model for the Final Shrinkage of Concrete Using Artificial Neural Network](#)
DKH Amen, RS Al-Lashi, RS Al-Rawi, 2006

Conferences and courses attended

Conference	Location	Date	Presented
CONCREPE8	Japan- Kashikojima	2008	Study shrinkage behavior of SFRC restrained members exposed to hot climate
Concrete Structures for Sustainable community	Sweden- Stockholm	2012	Porosity, pore size distribution and permeability evaluation of porous concrete using image analysis
Computer and Industrial Engineering	Turkey- Istanbul	2005	Development of a Graphical and Statistical Model for the Ultimate Shrinkage of Concrete

Funding and academic awards

1. Certificate of completion from Matsumae International Foundation for a period of 6 month as a researcher in the university of Tokyo-Architectural department -Building Material Engineering Lab, July 2006 to Jan. 2007
2. Awards from UUNISCO for making the research in the university of Salahaddin-College of engineering, 2005
3. Master certificate, for participation in the World of Concrete- Certificate in Concrete Repair, held in Las Vegas-USA, 1-5/Feb/2010
4. Certificate of completion , Fiber reinforced concrete, Introduction, testing, design and application , warded by ACI e-learning

Professional memberships

1. Iraqi Engineering Union and Kurdistan Engineering Union.
2. ACI (membership in American Concrete Institute-ACI Iraq Chapter

Professional Social Network Accounts:

ResearchGate <https://www.researchgate.net/profile/Dillshad-Bzeni>

Linkidin [\(30\) Dillshad Hamad Amen | LinkedIn](#)

Google Scholar [Dillshad K. H. Amen Bzeni - Google Scholar](#)

Cover Letter

I am interested in being considered for a role as a researcher or lecturer specializing in concrete materials and structures. I am confident in my ability to make significant contributions in this sector. I possess extensive teaching expertise within the civil engineering department at Salahaddin University, primarily specializing in concrete materials, concrete construction, and composite materials, specifically fiber reinforced cementitious composite and laminated cementitious composite. My role in the civil department involves facilitating research and teaching collaborations to bridge the gap between traditional concrete and advanced forms of concrete, such as fiber reinforced concrete.

Baghdad University's civil department awarded me a Ph.D. in 2002. "Development of models for shrinkage and shrinkage cracking of concrete with reference to hot weather" was the title of my dissertation. In it, I investigate how there are various models for predicting concrete shrinkage, yet most of these models cannot be applied in hot weather zones. Specifically, when the ambient temperature and humidity of the air surrounding the concrete are variable, I was able to create a new computer program using Matlab to find both moisture and temperature distribution across the section of concrete members with time, which led to the exploration of moisture loss at each point of the section as a result of moisture movement from inside to outside of the concrete. and there evaporation would happens from the surface to the surrounding air. Moisture loss at each point caused shrinkage of concrete at this point, according to the shrinkage-moisture relationship previously determined from experimental work I have done for different concrete mix proportions, then differential shrinkage occurred internally, resulting in different types of stresses due to the restraining action of each part on the other. These stresses were compression for the internal regions of the concrete member and tension for the exterior boundaries. When the tension stress exceeds the tensile strengths of concrete, the section is

considered cracked, and the average shrinkage of these points is determined over time. Finally, a shrinkage model is developed to consider the boundary condition on the surface of concrete, which takes into consideration both temperature and humidity variation with time. The new shrinkage model was employed for end restrained concrete members, where additional parameters besides shrinkage, such as creep and tensile strain capacity of concrete, all contributed to the identification of a novel model for shrinkage cracking of concrete. My PhD was unique because I developed this program for the first time to take into account varied ambient conditions in a hot weather region of Baghdad in order to create a novel model for shrinkage and shrinkage cracking of concrete.

I am very interested in developing a model that accurately represents the characteristics of concrete and applying it to certain types of concrete. As an illustration, I have a keen interest in fiber reinforced concrete, where the fibers may be incorporated into the concrete without the requirement of conventional reinforcing steel, with the aim of constructing more environmentally-friendly buildings. To investigate the impact of fibers on the mitigation of concrete fractures.

I am interested in employing machine learning methods, particularly in Python and MATLAB, to create a computer program that can forecast the behavior and characteristics of fiber reinforced cementitious composites. This application will utilize linear and polynomial characteristics, together with an artificial neural network model, to forecast parameters such as compressive strength, flexural strength, and shear strength. The data might be acquired from both laboratory work and reviews of literature