Academic Curriculum Vitae



Personal Information:

Full Name: Dillshad Khidhir Hamad Amen

Academic Title: Asst. Professor

Email: (university email) dilshad.bzeni@su.edu.krd

Mobile: 07504486419



Education:

| Degree | University | Faculty | Department | Professional | <u>Date</u> |
|--------|------------|----------------|------------|--------------|-------------|
| Ph.D | Baghdad | Engineering | Civil | Construction | March /2002 |
| | | | | Material | |
| M.Sc | Baghdad | Engineering | Civil | Construction | June / 1995 |
| | | | | material | |
| B.Sc | Salahaddin | Engineering | Civil | Civil | July / 1989 |
| | | | | Engineering | |

Employment:

| Dates | Position | Location | College & department |
|--------------|--------------------------|--------------------------|------------------------|
| 1989 to 1992 | Site Engineer as a | Supervising building | |
| | military service in Iraq | construction in the | |
| | | Projects | |
| 1992 to 1995 | M.Sc Student | University of Baghdad | College of Engineering |
| | | | Civil Department |
| 1995 to 1997 | Asst Lecturer | University of Salahaddin | College of Engineering |
| | | | Civil Department |
| 1997 to 2001 | PhD Student | University of Baghdad | College of Engineering |
| | | | Civil Department |
| 1997 to 2001 | Asst Lecturer | University of Salahaddin | College of Engineering |
| | | | Civil Department |
| 2002 to 2004 | Lecturer | University of Salahaddin | College of Engineering |
| | | | Civil Department |
| | | | |

| 2004 to 2006 | Lecturer and Head of Department | University of Salahaddin | College of Engineering Software Engineering |
|--------------|---------------------------------|--------------------------|---|
| | Department | | department |
| 2006 to 2011 | Lecturer | University of Salahaddin | College of Engineering |
| | | | Civil Department |
| 2011 to date | Asst. Professor | University of Salahaddin | College of Engineering |
| | | | Civil Department |

Qualifications

| Teaching qualifications | - |
|--|--|
| IT qualifications | - MS. Office , Matlab , Mathcad , ATINA |
| Language qualifications such as TOEFL, IELTS or any equivalent | - |
| Any professional qualification | - |
| You could put any professional courses you have attended | Structural dynamic, structural materials, Advanced steel and concrete composite, Advanced reinforced concrete, Plastic Analysis, Design of Low carbon buildings, 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. 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. <u>Bond strength evaluation of polymer modified cement mortar incorporated with</u> polypropylene fibers

Pl 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. <u>Durability and fire-resistance performance of slag-based geopolymer composites</u>

AO Mawlod, DKHA Bzeni

Proceedings of the Institution of Civil Engineers-Engineering Sustainability, 2022

5. <u>Mechanical properties and load deflection relationship of polypropylene fiber reinforced self-compacting lightweight concrete</u>

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 Arioz, DKH Bzeni, RRA Zangy, E Arioz

IOP Conference Series: Materials Science and Engineering 737 (1), 012068, 2020

8. <u>Fiber reinforced self-compacting lightweight concrete for the manufacture of floating structures</u>

D Altalabani, S Linsel, DKH Bzeni

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

9. <u>An Experimental Investigation into the factors affecting strength and flowability of geopolymer binder</u>

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. <u>Comparative Analysis of the Rebound Hammer and Ultrasonic Pulse Velocity in Testing</u>
Concrete with Multi-Variation Equation

R Abdulmajeed, N Hasan, D Amen

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

14. <u>Deflection hardening behaviour of jute strands reinforced lightweight cementitious composite</u>

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, 2013

16. <u>Porosity, pore size distribution and permeability evaluation of porous concrete using image analysis</u>

DKHA Bzeni, R Rasheed, AH Mohammad

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

17. <u>Degree of hydration and strength development of low water-to-cement ratios in silica fume cement system</u>

DKH Amen, 2011

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

- 18. <u>Study shrinkage behavior of SFRC restrained members exposed to hot climate</u> DKH Amen, T Noguchi, 2009
- 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. <u>Prediction Model for the Final Shrinkage of Concrete Using Artificial Neural Network</u> 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, Awarded 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'd like to be considered for a position as a researcher or lecturer in the field of concrete technology, and I hope to demonstrate how much I can contribute. My research and teaching interests are perfectly aligned with the criteria of this position and with current members of staff. I have substantial teaching experience in the civil engineering department at Salahaddin University, with the majority of it focusing on concrete materials, concrete construction, and concrete mix proportion. My work in the civil department closes the gap between concrete as a material and structural concrete, notably fiber reinforced concrete, by encouraging research and teaching collaborations.

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 m, 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.

Actually, I'm interested in creating a model for concrete qualities and applying it for specific types of concrete. For example, I am interested in fiber reinforced concrete, in which the fibers can be blended with the concrete without the need for normal reinforcing steel, in order to create more sustainable construction works. And to explore the effect of fibers to control the cracks of concrete