



WALID A. Al- Kutti

Associate Professor, Consultant SCE, M. ASCE

Personal Data

Nationality |Yemeni

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Language Proficiency

Language	Read	Write	Speak
Arabic	Native	Native	Native
English	Fluent	Fluent	Fluent

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2011	PhD Civil Engineering	King Fahd University of Petroleum and Minerals	Dhahran, Saudi Arabia
2005	M.S Civil Engineering	King Fahd University of Petroleum and Minerals	Dhahran, Saudi Arabia
1998	B.S Civil Engineering	Cairo University	Cairo, Egypt

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	Simulation of Chloride Transport in Concrete with Stress Induced Damage
Master	Compliance Criteria for Quality Concrete

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work			Date
Associate Professor	Department of Civil and Construction Engineering	Imam Abdulrahman Bin Faisal University	Dammam, Saudi Arabia	June. 2019 to Present
Assistant Professor	Department of Civil and Construction Engineering	Imam Abdulrahman Bin Faisal University	Dammam, Saudi Arabia	Oct. 2011 to June 2019
Lecturer	Department of Civil Engineering	King Fahd University of Petroleum and	Dhahran, Saudi	Dec. 2005 to June 2011



		Minerals	Arabia.	
Graduate Assistant	Department of Civil Engineering	Aden University, Aden	Yemen	March 1999 to Jan. 2003
Structural Engineer	Prefab Building Factory (PBF)	Aden	Yemen	1998 to 2003

Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Member, Council of Faculty Advisory Board, Represent Faculty of College of Engineering	Imam Abdulrahman Bin Faisal University	2021- Present
Member, Council of Higher Education Studies	Deanship of Higher Education Studies	2021- 2022
Member, College Council	College of Engineering	2013-2021
Chairman, Department of Civil and Construction Engineering	College of Engineering	2013-2021
NCAAA and ABET Department Committee	College of Engineering	June 2012

Scientific Achievements

Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	Muhammad Nasir, ABM Saiful Islam, Khalid Saqer Alotaibi, Walid Al-Kutti	Evolution of Arabic Gum-based green mortar towards enhancing the engineering properties – Fresh, mechanical, and microstructural investigation	Construction and Building Materials, Vol. 365, 2023 .
2	Al-Gheethi, A.A.; Memon, Z.A.; Balasbaneh, A.T.; Al-Kutti, W.A. ; Mokhtar, N.; Othman, N.; Juki, M.I.; Noman, E.A.; Algaifi, H.A	Critical Analysis for Life Cycle Assessment of Bio-Cementitious Materials Production and Sustainable Solutions.	Sustainability 2022 , 14, 1920. https://doi.org/10.3390/su14031920
3	Hamdi A. Al-Jamimi, Walid A. Al-Kutti , Saleh Alwahaishi, Khalid Saqer Alotaibi	Prediction of compressive strength in plain and blended cement concretes using a hybrid artificial intelligence model	Case Studies in Construction Materials, Volume 17, 2022 , e01238, https://doi.org/10.1016/j.cscm.2022.e01238 .
4	Walid Al-Kutti , ABM Saiful Islam, Muhammad Nasir, Zaheer Abbas Kazmi and Mahmoud	Structural Performance and SWOT analysis of multi-story buildings of lightweight reinforced concrete comprising	Earthquakes and Structures, Volume 23, No.6, 2022 . http://doi.org/10.12989/eas.2022.23.6.000 .



	Sodangi	local waste materials.	
5	Muhammad Nasir, Muhammad Arif Aziz, Mukarram Zubair, Noman Ashraf, Tag Nasreldin Hussein, Moath Khalid Allubli, Mohammad Saood Manzar, Walid Al-Kutti , Mamdouh A. Al-Harthi	Engineered cellulose nanocrystals-based cement mortar from office paper waste: Flow, strength, microstructure, and thermal properties	Journal of Building Engineering, Volume 51, 2022 , 104345, https://doi.org/10.1016/j.job.2022.104345 .
6	ABM Saiful Islam, Walid Al-Kutti , Muhammad Nasir, Zaheer Abbas Kazmi and Mahmoud Sodangi	Potential use of local waste and SWOT analysis for developing structural lightweight concrete.	Advances in Materials Research, Vo. 11, No.2, 2022 .
7	Muhammad Nasir, Walid Al-Kutti , Tarek S Kayed, Adeyemi Adesina, Tamara Chernykh,	Synthesis and SWOT analysis of date palm frond ash-Portland cement composites	Environmental Science and Pollution Research, 2021 , DOI: 10.1007/s11356-021-13957-9
8	Walid Al-Kutti and Tamara Chernykh	An Isotropic Damage Model to Simulate Failure in Reinforced Concrete Beam	Magazine of Civil Engineering 2021 , accepted.
9	N. Ashraf, M. Nasir, W. Al-Kutti , FA Al-Maziad	Assessment of thermal and energy performance of masonry blocks prepared with date palm ash	Materials for Renewable and Sustainable Energy, 2020 , 9 (3), 1-13.
10	Walid Al-Kutti and ABM Saiful Islam	Potential design of seismic vulnerable buildings incorporating lead rubber bearing	Buildings, 2019 , 9(2), 37 https://doi.org/10.3390/buildings9020037 .
11	Muhammad Nasir and Walid Al-Kutti	Performance of date palm ash as a cementitious material on strength, durability and microstructure	Buildings, 2019 , 9(1), 6, DOI: 10.3390/buildings9010006.
12	A.B.M. Saiful Islam and Walid A Al-Kutti	Stochastic Reponses variation of aseismic buildings for lead rubber bearing properties under nonstationary excitation	Computers and Concrete, 2018 , V 21, 5, Pages 495-504.
13	Walid Al-Kutti , Muhammad Nasir, Megat Azmi Megat Johari, A.B.M. Saiful Islam, Abdullah Ahmed Manda and Nawaf I. Blaisi	An overview and experimental study on hybrid binders containing date palm ash, fly ash, OPC and activator composites	Construction and Building Materials; Volume 159, 20 January 2018 , Pages 567-577. https://doi.org/10.1016/j.conbuildmat.2017.11.017
14	Nawaf I Blaisi, Mukarram Zubair, Sadaqat Ali, Taye Saheed Kazeem,	Date palm ash-MgAl-layered double hydroxide composite: sustainable adsorbent for effective removal of methyl	Environmental Science and Pollution Research, , 2018 , Volume 25 (34) page 34319-34331



	Mohammad Saood Manzar, Walid Al-Kutti , Mamdouh A Al Harthi	orange and eriochrome black-T from aqueous phase	
15	Walid Al-Kutti , A.B.M.S. Islam, Muhammad Nasir	Potential use of date palm ash in cement-based materials	Journal of King Saud University - Engineering Sciences, Feb 2017 , http://dx.doi.org/10.1016/j.jksues.2017.01.004
16	Walid Al-Kutti , Muhammad Saleem, Nabil M Al-Akhras,	Numerical and Experimental Study on the Performance of Confined Concrete Subjected to Compressive Loading	Journal of King Abdul-Aziz University-Engineering Sciences 27(2), 2016 DOI:10.4197/Eng.27-2.3
17	Walid A Al-Kutti , Nabil M Al-Akhras	Effect of Silica Fume and Granulated Blast Furnace Slag on the Durability of Partially-Damaged Concrete	Journal of Engineering and Computer Sciences Qassim University, 2016 , Vol. 9, No. 1, pp. 1-17
18	W. A. Al-Kutti , N. M. Al-Akhras	The Durability of Partially-Damaged Concrete with the Addition of Silica Fume and Ground Granulated Blast Furnace Slag	Key Engineering Materials, Vol. 711, pp. 277-284, 2016
19	Muhammad Saleem, Walid A. Al-Kutti ,; Nabil M. Al-Akhras, and Hassan Haider	Nondestructive Testing Procedure to Evaluate the Load-Carrying Capacity of Concrete Anchors	ASCE Journal of Construction Engineering and Management, Volume 142 Issue 5 - May 2016
20	Walid A. Al-Kutti , Shazali, M.A., Rahman, M.K., Baluch, M. H	Enhancement in Chloride Diffusivity due to Flexural Damage in Reinforced Concrete Beams	ASCE Journal of Materials in Civil Engineering, 26(4):658-667, 2014
21	Yasser E. Ibrahim, Nabil Al-Akhras, Walid A. Al-Kutti	Destructive and Nondestructive Testing on Silica Fume Concrete	Advanced Materials Research, Vols. 919-921: 1890-1893, 2014
22	Rahman, M.K., Al-Kutti, W.A. , Shazali, M.A., Baluch, M.H	Simulation of Chloride Migration in Damaged Self Compacting Concrete	ASCE Journal of Materials in Civil Engineering, 24(7), 2012
23	Baluch, M. H, Rahman, M.K., Shazali, M.A., Walid A. Al-Kutti	Shrinkage stresses in concrete using a new material parameter	Proceedings of the ICE - Construction Materials ,Volume 164, Issue 4, 2011
24	Al-Amoudi, O.S.B., Walid A. Al-Kutti , Shamsad Ahmad, and Mohammad Maslehuddin, M.	Correlation between Strength and certain Durability Indices of Plain and Blended Cement Concretes	Cement and Concrete Composites, Vol. 31, Issue 9, pp. 672-676.), cited (15). 2009
25	Ahmad, Shamsad, Al-Kutti, W.A. , Al-Amoudi, O.S.B., and Maslehuddin, M.	Compliance Criteria for Quality Concrete	Construction and Building Materials, Vol. 22, Issue 6, pp. 1029-1039, cited (2). 2008
26	Ahmad, Shamsad, Al-Kutti, W.A. , Al-	Correlation between Depth of Water Penetration, Chloride	ASTM Journal of Testing and Evaluation, Vol. 36, No. 2, pp. 136-



	Amoudi, O.S.B., and Maslehuddin, M.	Permeability and Chloride Diffusion in Plain, Silica Fume and Fly Ash Cement Concretes	139, cited (3). 2008
27	Al-Amoudi, O.S.B., Al-Kutti, W.A. , Ahmad, Shamsad, and Maslehuddin, M.	Toward Specific Compliances to Assess the Concrete Quality in the Eastern Province, Kingdom of Saudi Arabia	Building Technology, Issue 14, (Rabi I 1429H), pp. 20-27 (in Arabic). 2008

Patents

#	Name of Inventor(s)	Patent Title	Registration and Publication Date
1	W. A. Al-Kutti Muhammad Nasir A.B.M. Saiful Islam	Date Palm Ash as Cement Based Material	Pub. No.: US 2019 / 0062214 A1, Date 28.2.2019.

Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1	W. A. Al-Kutti	Parameters Estimation of Drucker-Prager Plasticity criteria for Steel Confined Circular Concrete Columns in Compression	2nd International Congress on Materials & Structural Stability, CMSS Congress Rabat-Morocco, 2018
2	Al-Kutti, W.A. , Rahman, M.K., Shazali, M.A. Baluch, M. H	Effect Of Crack Width and Chloride Binding on the Diffusivity of Chlorides in Damaged Reinforced Concrete Beams	VIII International Conference on Fracture Mechanics of Concrete and Concrete Structures FraMCoS-8, Toledo, Spain , pp. 1877-1883 (2013).
3	Al-Kutti, W.A. , Rahman, M.K., Shazali, M.A. Baluch, M. H	Coupled Damage and Chloride Diffusion Behavior in RC Beams under Flexure	2nd International Engineering Mechanics and Materials Specialty Conference, Ottawa, Canada, (2011).
4	Al-Kutti, W.A. , Rahman, M.K., Shazali, M.A. Baluch, M. H	Effect of Axial Compressive Damage on Chloride Migration Through Concrete Subjected to Marine Environment	2nd International Conference on Marine environment Damage to Coastal and Historical Structures MEDACHS10, La Rochelle University, France, (2010).

Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1	Dr Mahmoud Sodangi Dr Muhammad Saleem Dr Walid Al-Kutti	Development of Non-Destructive Testing Method for evaluating the strength Capacity of Concrete Anchors	Jan 2016



2	Dr Walid Al-Kutti	Modeling of multiphysics problems in reinforced concrete and composite sections:	2016
3	Dr Walid Al-Kutti	Chloride Migration in Concrete with Fly Ash and Ground Granulated Blast Furnace Slag and subjected to Compressive Damage	2013

Current Researches

#	Research Title	Name of Investigator(s)
1	Potential use of local waste and SWOT analysis for developing structural lightweight concrete	Dr. W. Al-Kutti; RA: M.Nasir; Dr A.B.M. Saiful Islam
2	Sustainability, Eco-Point and Properties of Green Lightweight Concrete using Saudi Local Waste	Dr Mahmoud Sodangi, Dr A.B.M. Saiful Islam, Dr Walid Al-Kutti, Dr Zaheer Kazmi
3	Durability of local palm ash and pozzolanic materials	Dr. W. Al-Kutti; RA: M.Nasir; Dr A.B.M. Saiful Islam

Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
1	The 1 st Symposium of Sustainability of Concrete Structures	University of Dammam Tuesday , May 6th, 2014 G	Member, Organizing Committee
2	The 2 nd Symposium of Sustainability of Concrete Structures	University of Dammam, April 2nd, 2012G	Speaker

Membership of Scientific and Professional Societies and Organizations

- Consultant, SEC, Saudi Arabia
- Member, American Concrete Institute, ACI-SA.
- Member, Saudi Society of Civil Engineering, ASCE.

Teaching Activities

Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Design of Steel Structures	CONEN 541	4/Week
2	Topics in Construction Engineering	CONEN 534	3/Week
3	Senior Design Project	CONEN 551	3/Week
4	Topics in Concrete Structures	CONENE 583	3/Week
5	Concrete Materials	CONEN 322	2/Week



6	Analysis of Indeterminate Structures	CONEN 421	2/Week
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Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

1	Design of Steel Structures : Behavior and design of structural members and connections using Load and Resistance Factor Design (LRFD) methods. Tension members, compression members, beams and beam-columns. Typical shear and moment connections, welded and bolted.
2	Topics in Construction Engineering: Quality Control in construction engineering Introduction, major problems in concrete structures due to lack of quality. Documentation of quality system. quality system documents; Document layout and format; Writing the quality manual; Writing the quality procedures Case study : Using Non-destructive quality tests of concrete structures: types of tests, Surface hardness methods, Ultrasonic pulse velocity, combined method, Pull-off test, Durability test, moisture measurements, Rapid Chloride permeability.
3	Senior Design Project :Final year students will conduct individual design project in a field of special interest under the supervision of a faculty member. This fulfills a requirement for the BS degree, which will culminate in a written report. The Graduation Project is divided between two semesters. Methodology is developed and pre-data are collected in the first semester. Experiments and case studies are conducted, data is analyzed, and conclusions are sought in the second semester.
4	Topics in Concrete Structures: Calculate internal forces in structures due to external loads .Analyze concrete members and identify critical sections . Determine the dimensions of concrete section, the amount of reinforcement required for flexural and examine if concrete sections and members meet the code requirements (flat slabs, ribbed slabs and two-way hollow blocks slabs and stairs). Analyze and design concrete members in shear, determine the amount of shear reinforcement . Analysis and design of short and long columns and construction of the full P-M diagram for columns using computer software .Create straining actions acting on the structural elements in terms of moment, shear and normal force diagrams using computer software as well as design such structural elements.
5	Concrete Materials: The influence of constituent materials (cements, water, aggregates and admixtures) on the properties of fresh and hardened concrete, concrete mix design, handling and placement of concrete, and the behavior of concrete under various types of loading and environment. Concrete material specifications and inspections. Laboratory exercises, which utilize sieve analysis tests for aggregates and standard concrete test methods, are an integral part of the course.
6	Analysis of Indeterminate Structures: Introduction to Indeterminate Structures; Determinacy and Stability Deflections; Deflection diagrams and the elastic curve; Moment – Area Theorems; Conjugate-Beam Method Analysis of Indeterminate Structures by the Force Method; Force method (Beams);Force method (Frames) Moment distribution Method; Introduction; Beams; Stiffness-Factor Modifications; Moment distribution for Frames Advanced Applications of Structural software



Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Construction Quality Management	CONEN 614	16

Student Academic Supervision and Mentoring

#	Level	Number of Students	From	to
5 th year	5	13	2021	Present

Administrative Responsibilities, Committee and Community Service (Beginning with the most recent)

Administrative Responsibilities

#	From	To	Position	Organization
1	Oct. 2021	Present	Member	Council of Higher Education Studies
1	June 2013	Aug. 2021	Chairman of Civil & Construction Engineering Department	Department of Civil & Construction Engineering
2	Oct. 2012	June 2013	Departmental Representative, College Summer Training Program Committee	Department of Construction Engineering
3	Oct. 2013	June 2014	Head, Quality & Accreditation (NCAAA & ABET) Committee	Department of Construction Engineering

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1	Staad Pro
2	Sap 2000
3	COMSOL
4	ANSYS

Last Update

28/01/2023