

1- Personal Details

Name : Hani Alanazi
Date of Birth : 02 / 07 / 1985
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2- Area of specialization:

Major	Civil Engineering
Minor	Structural and Materials Engineering

3- Education & Qualifications

Date	Degree	University name	Country	Title of the Dissertation
2009	Bachelor	King Saud University	Saudi Arabia	Civil engineering
2015	Master	North Dakota University	United States	Explore Accelerated PCC Pavement Repairs Using Metakaolin-Based Geopolymer Concrete
2019	Ph.D.	University of Nebraska-Lincoln	United States	Investigation of Sulfate-Driven Deterioration in Cementitious Binding Materials Using Microstructural, Nanomechanical, and Chemical Characterization

4- Professional Activities:

Job Title	Place	Country	From	To
Associate Professor	Majmaah University	Saudi Arabia	2023	Till now
Head of Civil and Environmental Engineering Department	Majmaah University	Saudi Arabia	2020	2023
Assistant Professor	Majmaah University	Saudi Arabia	2019	2023
Ph.D. student and Research assistant	University of Nebraska-Lincoln	United States	2015	2019
Master student and Research assistant	North Dakota University	United States	2013	2014
Teaching assistant	Majmaah University	Saudi Arabia	2010	2011
Structural Engineer	Mohammed M. Al Rashid for Trading and Contracting Co. Ltd. - MARCO	Saudi Arabia	2009	2011

5- Teaching Experiences

#	Teaching Experiences	University
1	Building Construction	Majmaah University
2	Properties and Strength of Materials	Majmaah University
3	Senior Design I & II	Majmaah University
4	Materials of Construction	University of Nebraska-Lincoln
5	Statics	Majmaah University

6- Areas of Specialization

#	Areas of Specialization
1	Multiscale analysis of construction materials
2	Physical and chemical processes involved in durability issues
3	Geopolymer concrete and High-performance concrete
4	Concrete with recycled materials

7- Current membership in professional organizations

#	Membership	ID
1	Saudi Council of Engineers	634724
2	American Concrete Institute	1274346

8- Publications (most important publications in the last 3 Years)

#	Publications / Presentations	Journal	Publishing Year
1	Characterization of sulfate-driven deterioration through the microstructural and nanomechanical characteristics of the components of cement paste	Ain Shams Engineering Journal	2024
2	Multiscale optimization analysis of high strength alkali-activated concrete containing waste medical glass under exposure to carbonation and elevated temperatures	Developments in the Built Environment	2024
3	Uncertainty quantification of the flexural strengthening of RC beams with UHPC using improved metaheuristic algorithm	Ain Shams Engineering Journal	2024
4	Optimization of sustainable concrete properties modified with blends of date palm ash and eggshell powder using response surface methodology	Developments in the Built Environment	2024
5	Mechanical, microstructural characteristics and sustainability analysis of concrete incorporating date palm ash and eggshell powder as ternary blends cementitious materials	Construction and Building Materials	2024
6	Characterization and optimization of fresh and hardened properties of ultra-high performance geopolymer concrete	Case Studies in Construction Materials	2023
7	Rheological and morphological characterization of cup lump rubber-modified bitumen with evotherm additive	Arabian Journal for Science and Engineering	2023
8	Development of ultra-high-performance concrete with low environmental impact integrated with metakaolin and industrial wastes	Case Studies in Construction Materials	2023
9	Mechanical performance of concrete made with sewage sludge ash: A review (Part I)	Science and Engineering of Composite Materials	2023
10	Optimization and Modelling the Mechanical Performance of Date Palm Fiber-Reinforced Concrete Incorporating Powdered Activation Carbon Using Response Surface Methodology	Materials	2023
11	Modeling and Optimization of Date Palm Fiber Reinforced Concrete Modified with Powdered Activated Carbon under Elevated Temperature	Sustainability	2023
12	Production and optimization of sustainable cement brick incorporating clay brick wastes using response surface method	Ceramics International	2023
13	Prediction of chloride diffusion coefficient in concrete modified with supplementary cementitious materials using machine learning algorithms	Materials	2023
14	Modeling and optimization of the mechanical properties of date fiber reinforced concrete containing silica fume using response surface methodology	Case Studies in Construction Materials	2022
15	A soft computing technique for predicting flexural strength of concrete containing nano-silica and calcium carbide residue	Case Studies in Construction Materials	2022
16	Evaluating the Influence of Elevated Temperature on Compressive Strength of Date-Palm-Fiber-Reinforced Concrete Using Response Surface Methodology	Materials	2022
17	Mechanical and Microstructural Properties of Ultra-High Performance Concrete with Lightweight Aggregates	Buildings	2022

18	Modeling and Optimization of High-Volume Fly Ash Self-Compacting Concrete Containing Crumb Rubber and Calcium Carbide Residue Using Response Surface Methodology	Arabian Journal for Science and Engineering	2022
19	Modelling and Optimizing the Durability Performance of Self Consolidating Concrete Incorporating Crumb Rubber and Calcium Carbide Residue Using Response Surface Methodology	Buildings	2022
20	Effect of edge oxidized graphene oxide on micro and macro mechanical properties and microstructure of cement paste	International Journal of Materials Research	2022
21	Study of the Interfacial Transition Zone Characteristics of Geopolymer and Conventional Concretes	Gels	2022
22	Multiscale Characterization of Fly Ash-based Geopolymer and Type V Portland Cement Exposed to MgSO ₄ .	Journal of Materials in Civil Engineering	2022
23	Mechanical Properties and Durability Performance of Concrete Containing Calcium Carbide Residue and Nano Silica	Materials	2021
24	Effect of Aggregate Types on the Mechanical Properties of Traditional Concrete and Geopolymer Concrete	Crystals	2021

9- MAJOR RESEARCH PROJECTS

#	Research Project	Funded by
1	Evaluating the Quality, Safety, and Efficiency of Insulated Block Products in the Saudi Market (Project No. SASO-240701019927).	Saudi Standards
2	Characterization of sulfate-driven deterioration through the microstructural and nanomechanical characteristics of the components of cement paste (Project No. R-2023-1365)	Majmaah University
3	Multiscale optimization analysis of high strength alkali-activated concrete containing waste medical glass under exposure to carbonation and elevated temperatures (Project No. ICR-2024-1185)	Majmaah University
4	Characterization and optimization of fresh and hardened properties of ultra-high performance geopolymer concrete (Project No. R-2023-643)	Majmaah University
5	Mechanical, microstructural characteristics and sustainability analysis of concrete incorporating date palm ash and eggshell powder as ternary blends cementitious materials (Project No. R-2023-896)	Majmaah University
6	Development of Sustainable Natural Fiber Reinforced Concrete Utilizing Date Palm Fiber and Date Palm Nano-Fibrous Material at Normal and Elevated Temperature (Project No. IFP-2022-28).	Ministry of Education in Saudi Arabia
7	Enhancing the properties of Ultra-High Performance Concrete with Lightweight Aggregates (Project No. R-2021-218)	Majmaah University
8	Multiscale Characterization of Fly Ash-based Geopolymer (Project No. R-2021-247)	Majmaah University
9	Effect of Aggregate Types on the Mechanical Properties of Traditional Concrete and Geopolymer Concrete (Project No. R-2021-218)	Majmaah University
10	Development of Ultra-High-Performance Concrete (Project No. IFP-2020-117)	Ministry of Education in Saudi Arabia
11	Production and Optimization of Sustainable Cement Bricks (Project No. IFP-2020-82)	Ministry of Education in Saudi Arabia
12	Development of Ultra-High-Performance Geopolymer Concrete (Project No. IFP-2020-105)	Ministry of Education in Saudi Arabia
13	Identification and Modeling of Interphase in Cementitious Mixtures through Integrated Experimental-Computational Multiscale Approach (Project No. CMMI-1635055)	National Science Foundation in USA