

Department of Civil & Architectural Engineering

Department Executive Summary

This document reports about progress and activities of the Department of Civil & Architectural Engineering for the calendar year 2020. During this year, the department continued its strong activities in all academic domains and the industrial and community interactions.

One of the **significant achievement by the CAE Department for 2020 is the approval of Minor in Engineering Project Management** by the University to start in Fall 2021. In the teaching and learning side, the Department continued its effort in reviewing and enhancing its curricula and associated activities and facilities. One of the exiting news for the CAE in 2020 is **the achievement of ISO-17025 certification for testing in Construction Materials**. The Department submitted 10 methods (out of 33 methods for the whole university) and got a clean record for all methods. **The Department is the first and only teaching department to do this exercise at Qatar University**. The accreditation involved rigorous process and documentations that the Department developed along with a great success in the virtual visit organized in Fall 2020. In 2020, the **Self-Study Report (SSR) for the undergraduate program was prepared and submitted**. The report received very positive praise with only minor corrections. With regard to teaching and learning enhancement, the Department continued leading activities on **Project Based Learning** and pioneered implementation of other activities in higher education to improve the learning of students including the application of **Game Based Learning**. The Department shared experience on teaching and learning, including **publications of 6 high quality journal papers on higher education**.

In the research side, academics in the Department continued their significant effort in publications and attracting new grants. The CAE Department published **96 Journal papers (68 top tier, 18 second tier and 10 others) in 2020**, compared to 63 journal papers (33 top tier, 11 second and 19 others) in 2019. The Department also published **36 conference papers in 2020 in International Conferences compared to 33 in 2019**. In 2020, the Department **moved up to 151-200 place in Shanghai Ranking** in the Civil Engineering subject compared to the position of 201-300 in 2019.

With regard to the interaction with the community and industry, the CAE Department with strong support from the College of Engineering **successfully organized the International Conference on Civil Infrastructure and Construction in February 2020**. **The Department received over 1 Million QAR of funds** for the organization from the public and private sectors as well as from registrations. The CAE Department also continued the **strong collaboration and interaction with the main stakeholders and submitted a number of proposals to Ashghal, MME, and Qatar Rail**. The Department continued **the organization of Civil Engineering industrial workshop** which host high quality senior engineers and have wide range of audience from the industry beside the student audience. The CAE Department and CAM Center **secured funding of 950,000 QAR from the Supreme Committee for Delivery and Legacy** through a new research project awarded in November 2020.

The report shows details along with the dates of the activities and achievements during the calendar year 2020.

Department Profile

Table 1: Executive Summary of Civil & Architectural Engineering Department

Description	
Academic and Support Staff	
	2020
Faculty	15
Lecturers and Teaching Assistants	7
Graduate Assistant	3
Technical and Administrative Staff	3
On-Study Leave	2
Total	30
Undergraduate Program	
	2020
Enrollment (Fall 2020)	235
Registered (Fall 2020)	208
Graduates (Spring 2020)	30
Graduates (Summer)	10
Graduates (Fall 2020)	13
Graduate Program	
	2020
Enrollment (Fall 2020)	62
Registered (Fall 2020)	38
Graduates (Spring 2020)	6
Research Projects (Awarded in 2020)	
	2020
GSRA	4
NPRP	1
PDRA	1

UREP	3
Qatar University Grants	1
University Internal Students' Grants	1
Research Projects (Active in 2020)	2020
GSRA	4
NPRP	6
PDRA	2
UREP	7
Qatar University Grants	2
University Internal Students' Grants	2
Industrial	2
Publications (Appendix A1)	2020
Refereed Journal Papers	96
Conference Papers	36
Technical Reports	0
Book Chapters	1
Books	0
Book Reviews	0
Editorials and Essays	0
Seminars – Public Lectures – Short Courses (Appendix A2)	2020
Seminars and Public Lectures Delivered by Departmental Faculty Members Inside Qatar University	1
Seminars and Public Lectures Delivered by Departmental Faculty Members Outside Qatar University	1
Short Course Delivered by Departmental Faculty Members	1

Seminars and Public Lectures Attended by Departmental Faculty Members	10
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Invited Public Lectures/ Keynote Speakers	4
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Faculty Activities (Appendix A3)	2020
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Professional Service	1
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Awards and Achievements	7
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Conferences Attended	5
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Workshops, Training and Visits Attended	1
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Workshops, Training and Visits Delivered	1
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Seminars & Trainings	4
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Events Organized	2
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Other Activities	2
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Students' Activities (Appendix A4)	2020
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Competitions	1
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Awards	3
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Field Trips, Social and Extra-Curricular Events	0
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Academic Staff

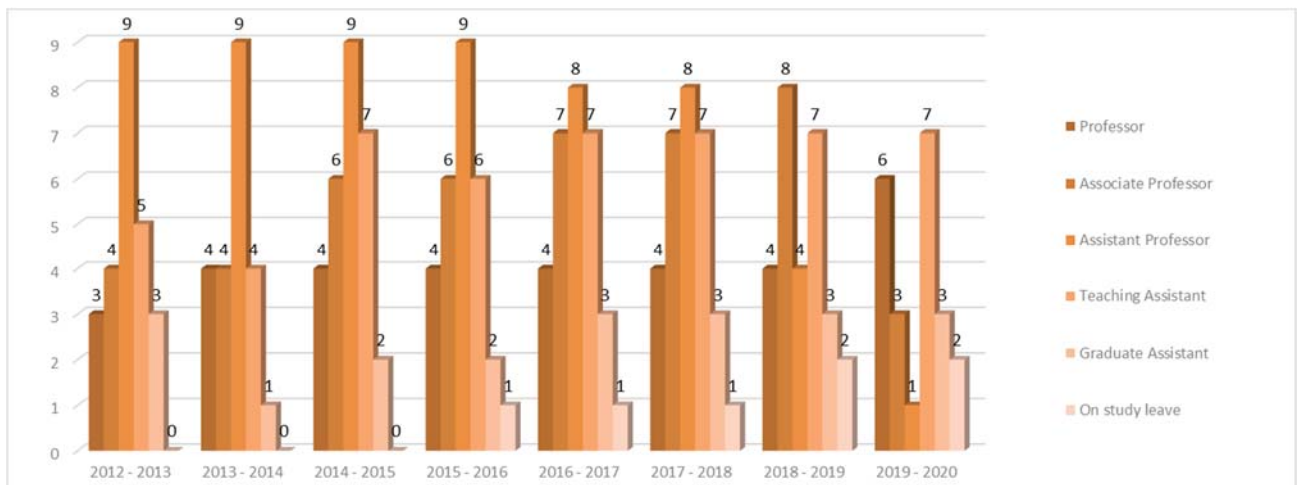


Figure 1: Academic Staff in CAE Department, 2012-2020.

Technical and Administrative Staff

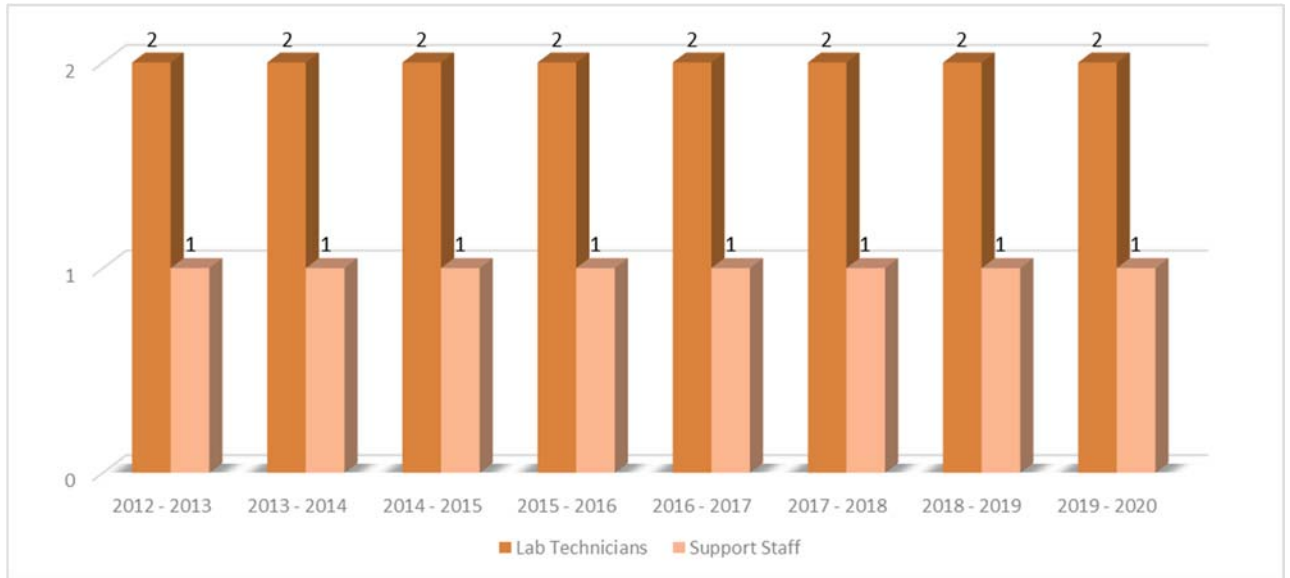


Figure 2: Non-Academic Staff in CAE Department, 2012-2020.

Department Standing Committees





The department has number of committees and coordination roles for 2020 as listed below:

- Departmental Board Committee: Dr. Mohammed Hussein (Chair).
- Postgraduate program coordinator: Dr. Mohammed Elshafie.
- Curriculum and quality assurance Committee: Dr. Alaa Al-Hawari (Chair), Dr. Murat Gunduz, Dr. Hisham Eid.
- Research and postgraduate committee: Dr. Mohammed Elshafie (Chair), Dr. Khaled Shaaban (Spring 2020), Dr. Okan Sirin, Dr. Mohamed Ayari (Fall 2020).
- CIC 2020 Conference: Dr. Okan Sirin (Chair), Prof. Usama Ebead, Prof. Murat Gunduz, Prof. Hisham Eid, Dr. Mohammed Hussein.
- Promotion committee: - Ad-Hoc Committee.
- Recruiting committee
Spring 2020: Dr. Mohammed Al-Ansari (Chair), Dr. Murat Gunduz, Dr. Wael Alnahhal, Dr. Usama Ebead
Fall 2020: Dr. Mohammed Elshafie (Chair), Dr. Murat Gunduz, Dr. Okan Sirin.
- Scheduling coordinator: Dr. Wael Alnahhal.
- Minor in Engineering Project Management: Dr. Mohammed Elshafie, Dr. Mohammed Hussein, Dr. Murat Gunduz.
- Newsletter coordinator: Dr. Alaa Al-Hawari.
- Accreditation of lab testing coordinator: Dr. Wael Alnahhal.

- Coordinator of Senior design project: Dr. Riyadh Al-Raoush.
- Minutes recorder for Board meetings: Eng. Muhammad Shekab Afzal.
- University Senate member: Dr. Wael Alnahhal.
- Administrator for Senior design projects: Eng. Muhammad Shekaib
- Administrator for outreach, events plus shared folder and software: Eng. Nasser Al-Nohmi
- Administrator for Curriculum committee, website and P-card: Eng. Abdulrahman Abu Hijleh
- Assistant coordinator for Scheduling and course registration: Eng. Khaled Rabie.
- Administrator for Postgraduate committee: Eng. Anas Alsharo.
- Assistant staff for tendering and labs safety and requirements: Eng. Abdul Azeez Kilayil.
- Assistant staff for accreditation and lab development: Eng. Siju Joseph.

Faculty Profile


Table 2: CAE Faculty Profile 2020

Photo	Faculty Name	Rank/Position	Area of Specialization
Faculty Members with Administrative Roles			
	Mohammed Hussein	Head of the Department of Civil and Architectural Engineering	Railway Engineering, Ground-borne Vibration, Structural Dynamics, Structural-Health Monitoring, Soilstructure interaction, Human-structure interaction.
	Hassan Al-Derham	QU President	Procurement of construction projects, productivity of construction projects, housing projects, evaluation of consulting offices
	Omar Al-Ansari	Qatar University Vice-President for Academic Affairs	Geotechnical Engineering
	Khalid Naji	Dean of the college of Engineering	Computer applications in construction engineering with emphasis on project management, cad and graphical simulation techniques, virtual environments

	Nasser Alnuaimi	Director of the Center for Advanced Materials	Structural concrete properties and behavior, concrete materials engineering and the design of reinforced concrete structures, concrete durability and concrete repair
Full Professors			
	Mohammed Al-Ansari	Professor	Reinforced concrete design; solid mechanics, Earthquake Engineering, Numerical Analysis
	Hisham Eid	Professor	Soil and rock mechanics, geo environmental engineering, soil structure interaction
	Usama Ebead	Professor	Structural Engineering, Rehabilitation of reinforced concrete structures, Finite element modeling of reinforced concrete structures, Durability of FRP reinforcement in concrete
	Murat Gunduz	Professor	Construction engineering and management, construction productivity measurement and improvement, construction health and safety, data collection and analysis
	Riyadh Al-Raoush	Professor	Fate and transport of contaminants in subsurface systems, Environmental fluid dynamics, Multiphase and multistate modeling of flow through porous media
	Alaa Al Hawari	Associate Professor	Water and waste water treatment (membrane rejection and fouling, bio sorption and selective adsorption), solid waste management and sustainability
Associate Professors			

	Okan Sirin	Associate Professor	Pavement materials and design, Superpave technology, Accelerated pavement testing, Traffic engineering
	Wael Ibrahim Anahhal	Assistant Professor	Structural Engineering, Application of advanced composite materials (FRP) in the infrastructure and in upgrading deteriorating structures, Computational mechanics, Finite Element Analysis, Floor vibrations serviceability, and Earthquake Engineering.
	Mohammed Elshafie	Associate Professor, Postgraduate Program coordinator	Acquiring and understanding in-depth new information about Civil Engineering infrastructure; using novel sensing techniques on real world assets combined with advanced modelling techniques, provides the missing feedback loop between design, construction and operation.
Assistant Professors			
	Mohamed Arslan Ayari	Assistant Professor	Computational Thermo-Fluid Dynamics (CFD), design and analysis of heating ventilation, air conditioning and refrigeration (HVAC/R) systems, Renewables Energy and Energy Management, Environmental modeling focused on contaminant distribution and indoor air quality, Sustainable Development.
Teaching Assistants			
	Abdulrahman Z. Abu-Hijleh	Teaching Assistant	Construction Management & Analysis and Design of Structures
	Nasser Al-Nohmi	Teaching Assistant	Analysis and Design of Structures, concrete durability, Structural concrete properties and behavior & Construction Management

	Khaled Rabie	Teaching Assistant	Geotechnical Focusing on Landslides ,slope stability and soil shear strength
	Muhammad Shekaib Afzal	Teaching Assistant	Experimental testing of Large scale reinforced strengthened beams using textile-reinforced mortars and Finite Element Modeling of reinforced concrete structures.
	Hamad Alnuaimi	Lecturer	Analysis and Design of Structures (On-Study Leave)
	Anas Al-Sharo	Teaching Assistant	Surveying, Structural Analysis and Design
	Eng. Salem Alnaimi	Teaching Assistant	Transportation Engineering
Lab Technicians			
	Abdul Azeez Kilayil	Senior Lab Technician	Land Surveying, Materials Testing & Concrete and Soil Mechanics

	Joseph Valiya Parambil Siju	Lab Technician	Traffic, Transportation & Pavement and Material Testing
Administrative Assistants			
	Aisha Al- Kuwari	Administrative Coordinator	

Department/Program FTE

The tables below show the teaching load for the core academics in the CAE Department. The load covered by collaborating Centers is not shown here.

Table 3: Teaching load of 2019-2020

Academic	Courses	SDPs	Thesis	Total	Required	Difference
Dr. Al-Ansari	12	3.631125	0	15.631125	18	-2.368875
Dr. Al-Hawari	13.5	2.7045	2	18.2045	18	0.2045
Dr. Alhajyassen	3	0	2	5	6	-1
Dr. Al-Nahhal	12	3.93952	1.5	17.43952	18	-0.56048
Dr. Al-Nuaimi	0	0	0.75	0.75	3	-2.25
Dr. Al-Raoush	12	1.33504	3	16.33504	18	-1.66496
Dr. Moncef	18	0	0	18	18	0
Dr. Ebead	12	5.0082	0.5	17.5082	18	-0.4918
Dr. Eid	18	0.25005	0	18.25005	18	0.25005
Dr. Elshafie	6	5.531325	0	11.531325	12	-0.468675
Dr. Gunduz	12	2.9702	3.5	18.4702	18	0.4702
Dr. Hussein	6	0.6668	0.25	6.9168	6	0.9168
Dr. Naji	6	0	1.25	7.25	3	4.25
Dr. Shaaban	9	1.8018	0	10.8018	12	-1.1982
Dr. Sirin	12	3.1691	1	16.1691	18	-1.8309
Total overload						-5.74234

Table 4: Teaching load of 2020-2021

Academic	Courses	SDPs	Thesis	Total	Required	Difference (+ means overload)
Dr. Al-Ansari	12	4.2509	0	16.25085	18	-1.74915
Dr. Al-Hawari	9	1.0836	2.75	12.83355	12	0.83355
Dr. Al-Nahhal	18	1.5003	2.5	22.0003	18	4.0003
Dr. Al-Nuaimi	3	0	0	3	3	0
Dr. Al-Raoush	12	3.5007	1.5	17.0007	18	-0.9993
Dr. Ayari	12	2.1254	0.25	14.37543	15	-0.624575
Dr. Ebead	6	1.3336	2.5	9.8336	9	0.8336
Dr. Eid	15	1.2086	0	16.20858	18	-1.791425
Dr. Elshafie	9	3.1256	0	12.12563	12	0.125625
Dr. Gunduz	15	2.0838	4.25	21.33375	18	3.33375
Dr. Hussein	6	0	0.41667	6.41667	6	0.41667
Dr. Naji	3	0	4	7	3	4
Dr. Plevris	9	0	0	9	9	0
Dr. Sirin	15	2.3755	0.5	17.87548	18	-0.124525
Total overload						8.25452

Undergraduate Majors and Minors

Bachelor of Science in Civil Engineering

The Department of Civil and Architectural Engineering at Qatar University awards the Bachelor of Science (B.Sc.) in Civil Engineering. Civil Engineering is the broadest and oldest of the engineering disciplines, spanning across many technical specialties which are not independent, but rather interact with each other. Civil engineers plan, design, construct and maintain the physical and naturally built environment including buildings; roads; bridges; airports; railways; ports; water distribution and wastewater collection systems; waste disposal facilities; tunnels; stadiums; offshore structures; dams; and other infrastructure projects. As civil engineers develop their skills, they can advance into the area of engineering management, overseeing the completion of the whole project.

Our students have to complete a total of 131 credit hours in order to graduate with the B.Sc., degree. Our curriculum ensures an excellent coverage of mathematics and basic sciences; general education; communication skills development; engineering fundamentals; core and upper level civil engineering courses' requirements; and design experience. Additional opportunities to enhance professional development include industrial training; field visits; presentations by practicing engineers; involvement in research projects and competitions; participation in the ASCE Student Chapter; and participation in students' exchange through the International Association for the Exchange of Students for Technical Expertise (IAESTE) Program.

The department has 16 faculty members, 7 full-time teaching assistants, 2 engineering technicians, and 1 administrator. Three of those faculty members are fully engaged in upper administration duties. All faculty members have PhDs from various reputable institutions in three countries (USA, Canada and the UK). The faculty members' specialties cover various areas of Civil Engineering including structures; transportation; geotechnical and materials; water resources; environmental engineering; and construction management and engineering. A number of faculty members are also holders of the professional engineering license from the USA, Canada and Jordan. Our faculty members are also active in research and other scholarly work, professional service, and community engagement.

We are proud of our students, faculty, teaching assistants, and other supporting staff. We are also proud that the Civil Engineering Program is accredited by the Engineering Accreditation Commission of ABET. Accreditation ensures that the students, parents, employers, and the society we serve can be confident that a program meets the quality standards that produce graduates prepared to enter a global workforce.

Minor in Engineering Project Management

The Minor in Engineering Project Management was approved by Qatar University in November 2020 and will start in Fall 2021.

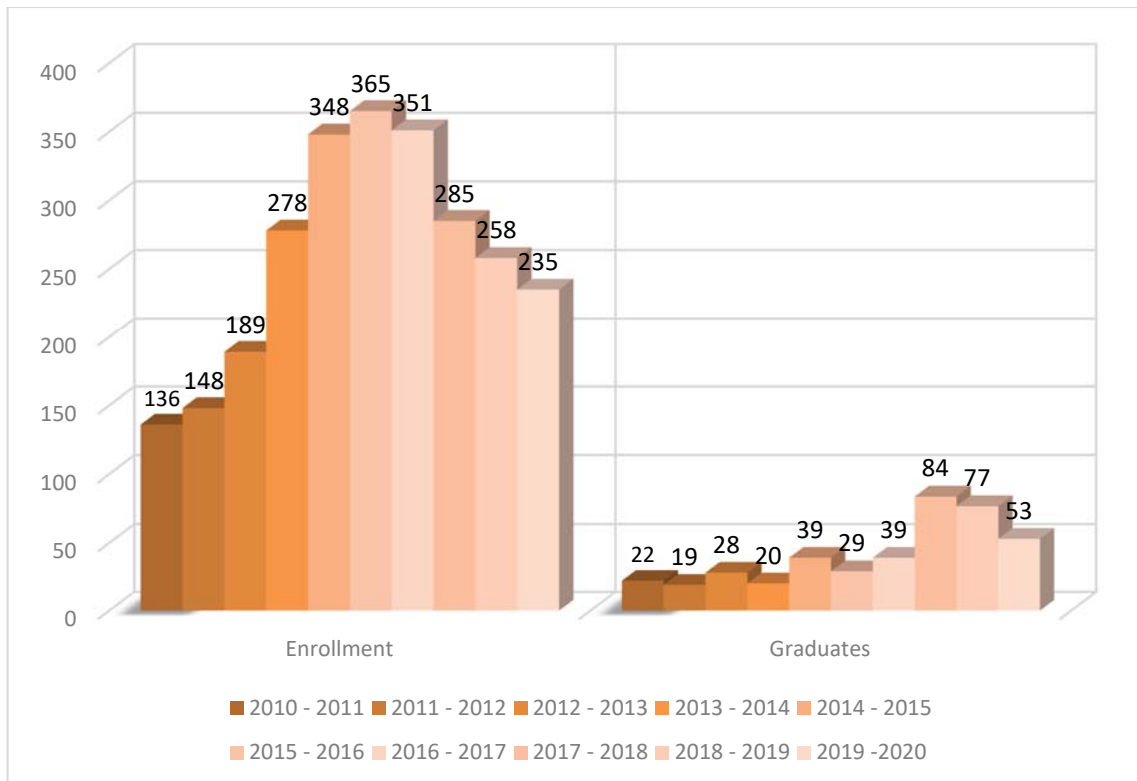


Figure 3: Number of enrolled and graduating undergraduate students in CAE department, 2010–2020.

Postgraduate Programs

The Department of Civil and Architectural Engineering started its graduate programs in 2010 as part of the graduate program of the College of Engineering, CENG. It participates in two interdisciplinary master's programs: The Engineering Management and the Environmental Engineering Programs, offered under the umbrella of the College of Engineering. In addition, the department has started to offer master's and Ph.D. degrees in other Civil Engineering disciplines.

The details of the department's graduate degrees can be summarized as follows:

1. Master of Science in Civil Engineering: A program that was initiated in Fall 2011. It includes specialization in structures, geotechnical, transportation, and hydraulics and water resources. This program started enrolling students in Fall 2012.
2. Ph.D. in Civil Engineering: This program was set up in 2010 and accepted two students in the area of structures/materials in Fall 2011. It grew in the following years and expected to further grow in the future.
3. Master of Science in Engineering: The Department of Civil and Architectural Engineering participates in two CENG Master of Science degrees in Engineering:

a) Engineering Management (Construction Track), in collaboration with the Department of Mechanical and Industrial Engineering: This track started in Fall 2012.

b) Environmental Engineering, in collaboration with the Chemical and Mechanical and Industrial Engineering Departments: This program started offering courses in Fall 2011.

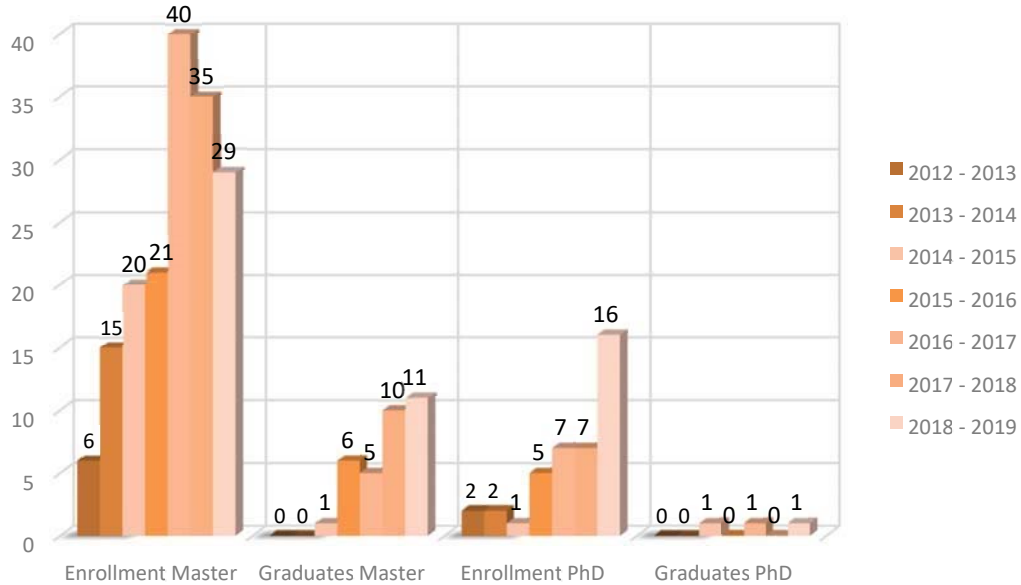


Figure 4: Number of enrolled and graduating graduate students in CAE department, 2012–2020

Internal, External Grants and Research

The following table illustrates the awarded research projects in the Department of CAE 2020

Table 5: Awarded Research Projects and Grants in the Department of CAE in 2020

Project Number	Project Title	Co-LPI/LPI
MME01-0906-190024	Hydrogel Agriculture to Support Food Security in Qatar	Alaa AlHawari
UREP26-012-2-006	Enhanced pre-treatment in reverse osmosis using a new multi-media gel filter	Alaa AlHawari
UREP26-049-2-013	Investigating the feasibility of producing irrigation water from tertiary treated municipal wastewater: performance of reverse osmosis.	Alaa AlHawari

UREP25-060-2-025	Harvesting of marine microalgae as a food source using a new electrocoagulation electrode configuration	Alaa AlHawari
NPRP12S-0314-190366	A Novel Data-Driven Approach for Designing Dewatering Systems in Randomly Fractured Rock Masses	Hisham Eid
M045	Research on Supreme committee STADIA – Industrial fund	Nasser Alnuaimi and Mohamed Elshafie
QUCG-CENG-20/21-3	Development and behavior of high-strength green concrete made from locally available discarded materials in Qatar under harsh environment exposures.	Wael Alnahhal

Table 6: Research Projects Active (running) during anytime from January 2020 to the end of December 2020 which were awarded in previous years

Project Number	Project Title	Co-LPI/LPI
IRCC-2019-011	Transforming Locally Available Industry by-products to Innovation in Road Construction Materials	Okan Sirin, Nasser Al-Nuaimi and Murat Gunduz
CWSP17-C-0906-19015	International Conference on Civil Infrastructure and Construction	Okan Sirin, Usama Ebead, Hisham Eid, Murat Gunduz, , Mohammed Hussein
QUEX-CENG-Rail 17/18	Framework for Railway Research, Industrial funding from Qatar Rail	M.F.M. Hussein (Role: Lead-PI)
PDRA5-0228-19001	The Utilization of TBM Muck and Substation Excavation Wastes Generated in Qatar for Construction Applications	PI Mohd Salem H Al-Ansari

PDRA3-0402-17003	Towards a Flexi-Concrete: CNTs' Reinforcement Alternative	LPI: Mohd Salem H Al-Ansari
UREP24-045-2-013	Shear strengthening of RC beams using steel reinforced grout.	Usama Ebead
NPRP9-110-2-052	Sustainable concrete using seawater, recycled aggregates, and non-corrosive reinforcement	Usama Ebead
QUCG-CENG-19/20-1	A novel oil recovery process from solid-water-in-oil emulsion in inhomogeneous electric field	Alaa AlHawari
MME01-0906-190024	Hydrogel Agriculture to Support Food Security in Qatar	Alaa AlHawari
UREP26-012-2-006	Enhanced pre-treatment in reverse osmosis using a new multi-media gel filter,	Alaa AlHawari
UREP26-049-2-013	Investigating the feasibility of producing irrigation water from tertiary treated municipal wastewater: performance of reverse osmosis.	Alaa AlHawari
UREP25-060-2-025	Harvesting of marine microalgae as a food source using a new electrocoagulation electrode configuration	Alaa AlHawari
GSRA5-2-0525-18072.	Treatment of wastewater using a novel electrocoagulation process	Alaa AlHawari
NPRP10-0117-170176.	Forward Osmosis Seawater Pretreatment for High Performance Thermal Desalination Plants	Alaa AlHawari
GSRA6-1-0509-19021	Development of polymer based FO draw solution for irrigation purposes in Qatar	Alaa AlHawari

NPRP12S-0314-190366	A Novel Data-Driven Approach for Designing Dewatering Systems in Randomly Fractured Rock Masses	Hisham Eid
NPRP11S-1211-170085.	Self-Healing Bio-Concrete for sustainable and resilient Civil Infrastructure	Nasser Alnuaimi
NPRP 8-594-2-244	Gas Production form hydrate-bearing sediments	Riyadh Alraoush
UREP24-135-2-038	Evaluation of biostimulation to improve microbial electroremediation of petroleum hydrocarbon contaminated soils in bioelectrochemical systems	Riyadh Alraoush
UREP24-022-2-009	Bioremediation of petroleum hydrocarbon-contaminated soil and groundwater in coastal areas of Qatar.	Riyadh Alraoush
NPRP9-093-1-021	Groundwater Pollution by Petroleum-Derived Contaminants in Coastal (Semi)-Arid Environment.	Riyadh Alraoush.
QUCG-CENG-20/21-3	Development and behavior of high-strength green concrete made from locally available discarded materials in Qatar under harsh environment exposures	Wael Alnahhal
GSRA6-1-0301-19005	Durability and Shear Performance of High-Strength of Fiber Reinforced Concrete Beams Reinforced with Basalt FRP Bars and Stirrups.	Wael Alnahhal
GSRA6-1-0509-19022	Mechanical properties and durability of green concrete made with fly ash, recycled concrete aggregate and steel slag aggregates	Wael Alnahhal

UREP23-113-2-04	Utilization of recycled materials and industrial by-products as alternative construction materials at Qatar	Wael Alnahhal
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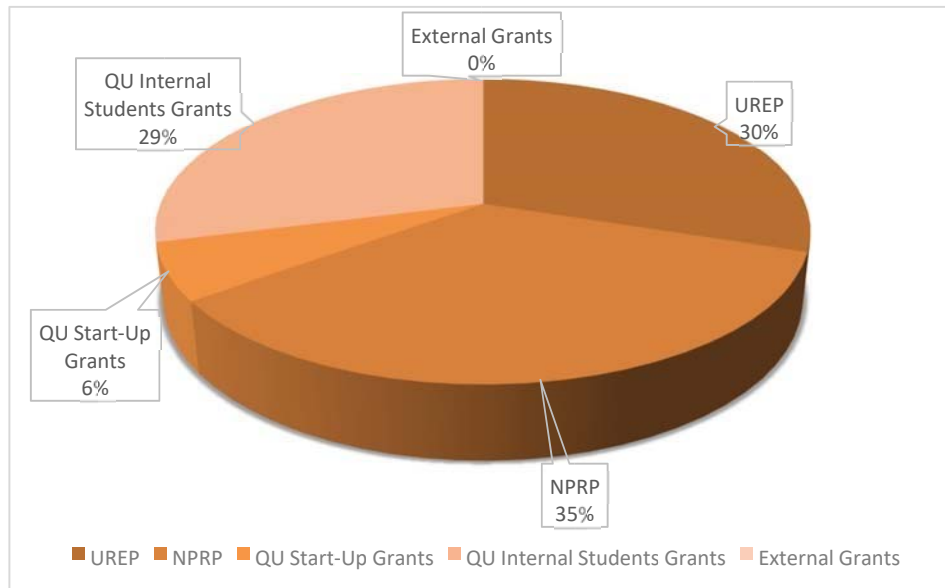


Figure 5: Research Projects Awarded in 2012-2013.

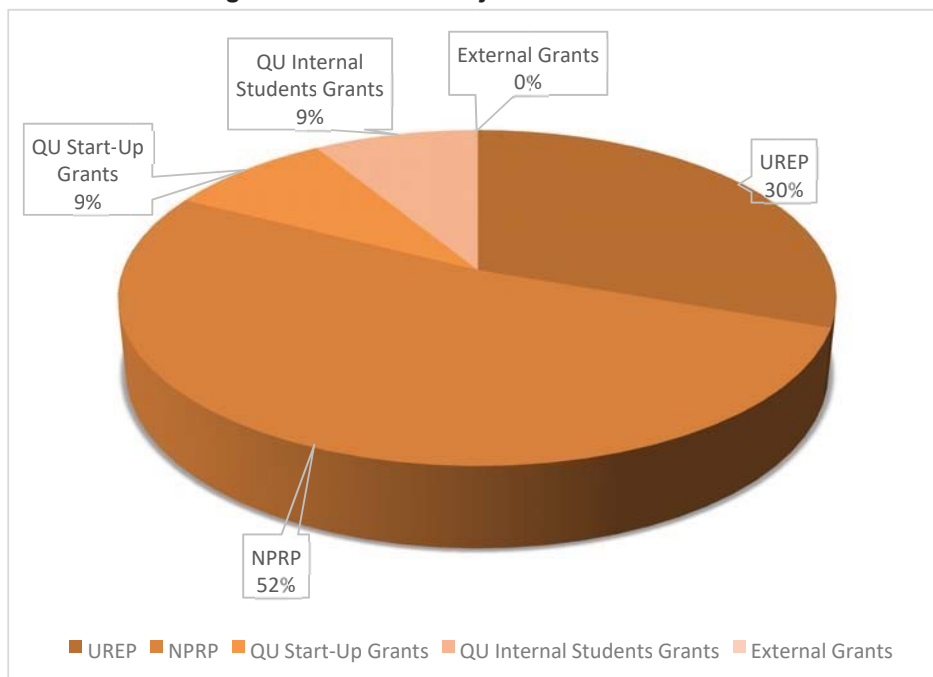


Figure 6: Research Projects Awarded in 2013-2014.

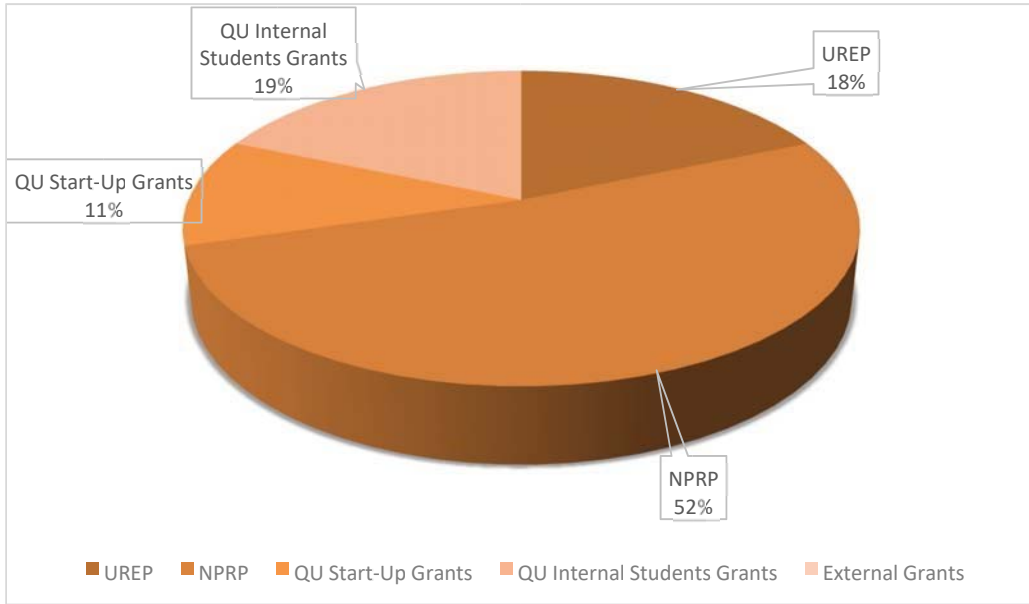


Figure 7: Research Projects Awarded in 2014-2015

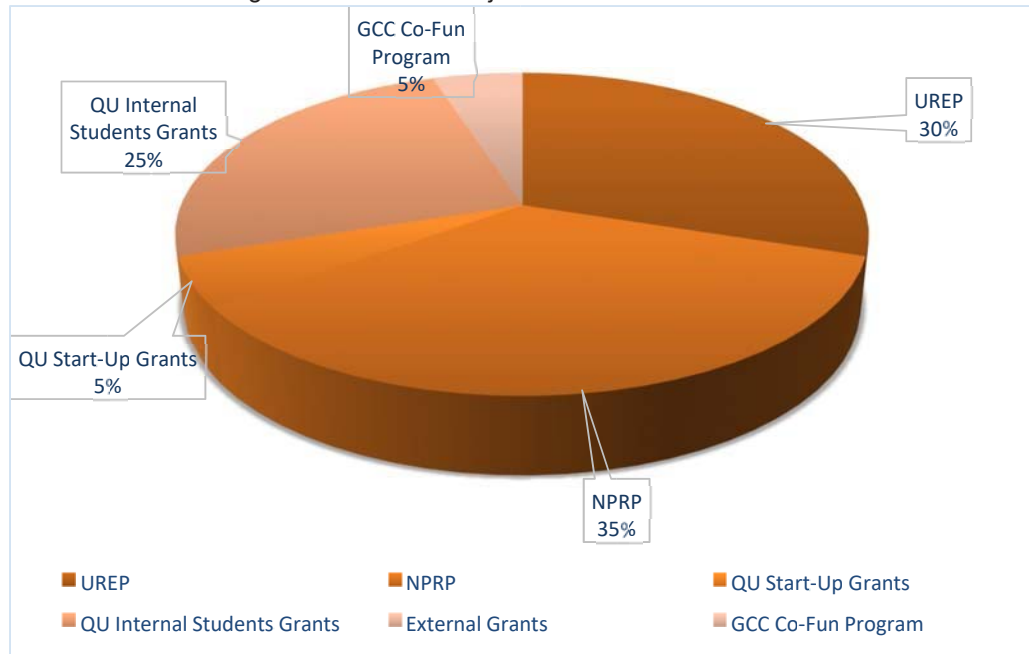


Figure 8: Research Projects Awarded in 2016.

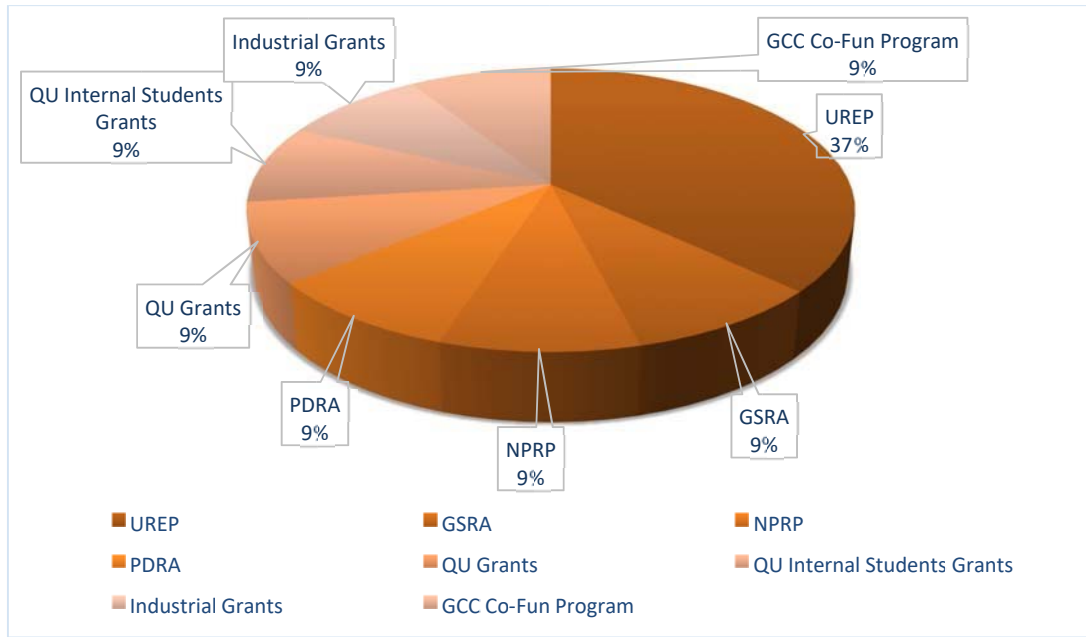


Figure 9: Research Projects Awarded in 2017.

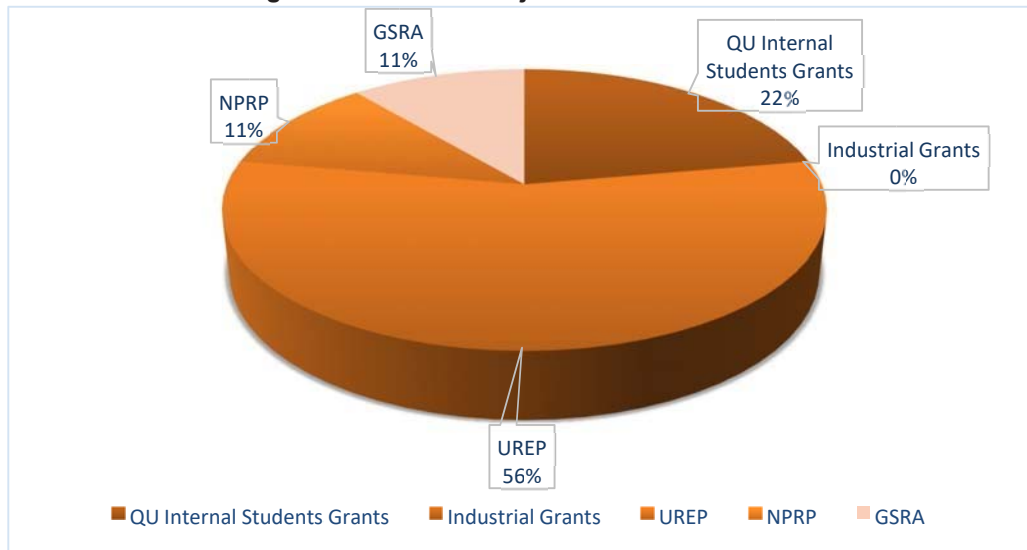


Figure 10 Research Projects Awarded in 2018.

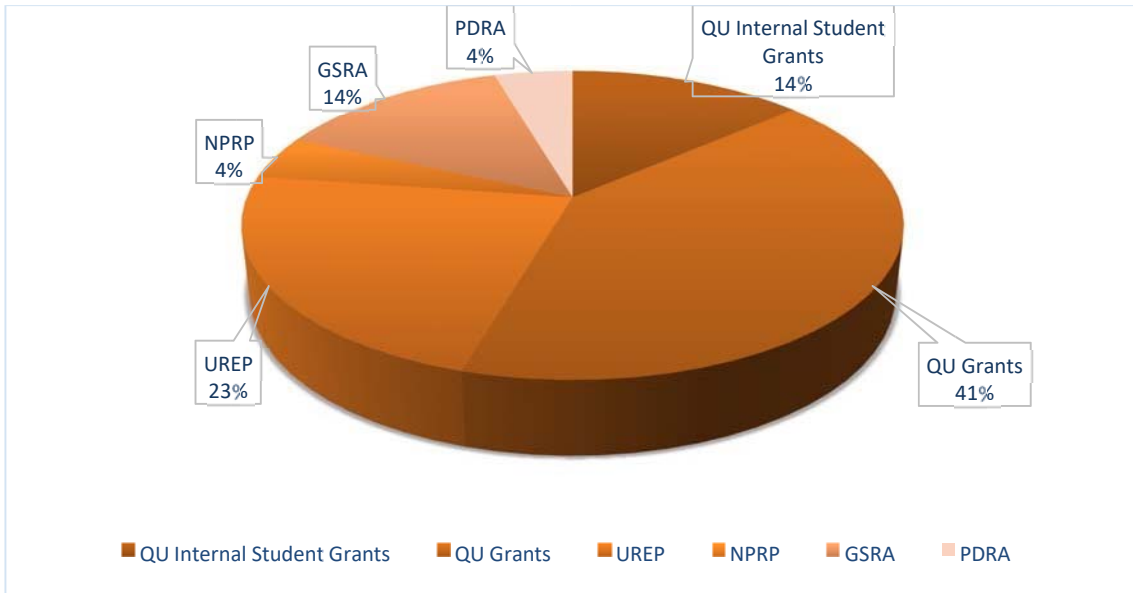


Figure 11 Research Projects Awarded in 2019.

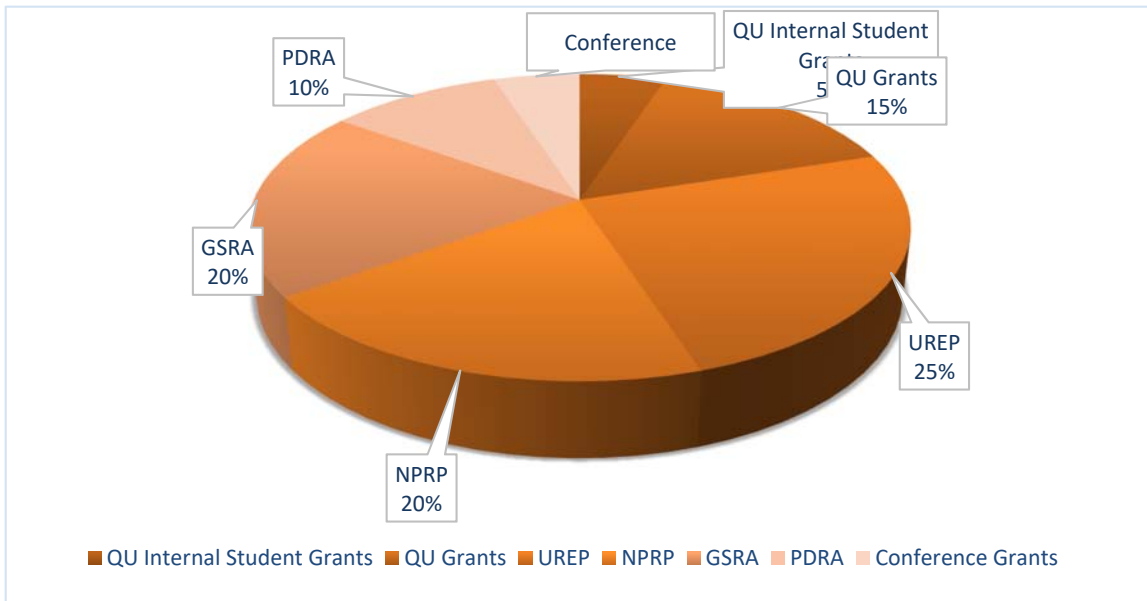


Figure 12 Research Projects Awarded in 2020.

Publications

The Figures below illustrate the publications in the Department of CAE 2013 -2020. List of publications in 2020 are indicated with details in appendix A1.

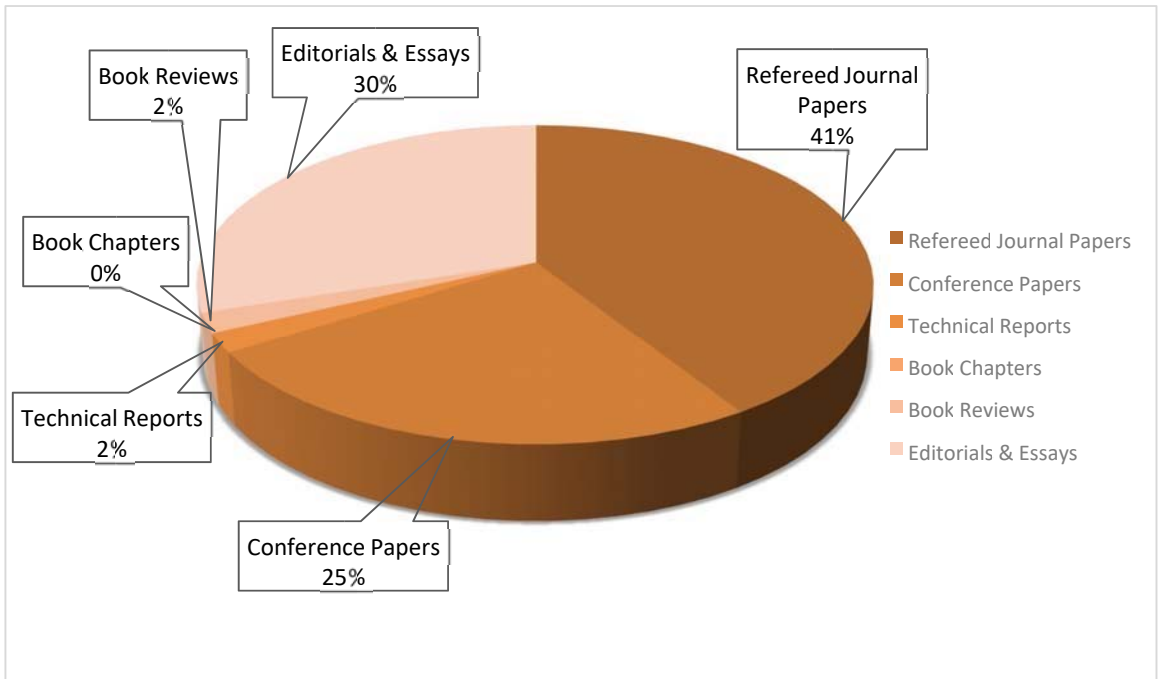


Figure 13: Publications by Faculty in 2012-2013

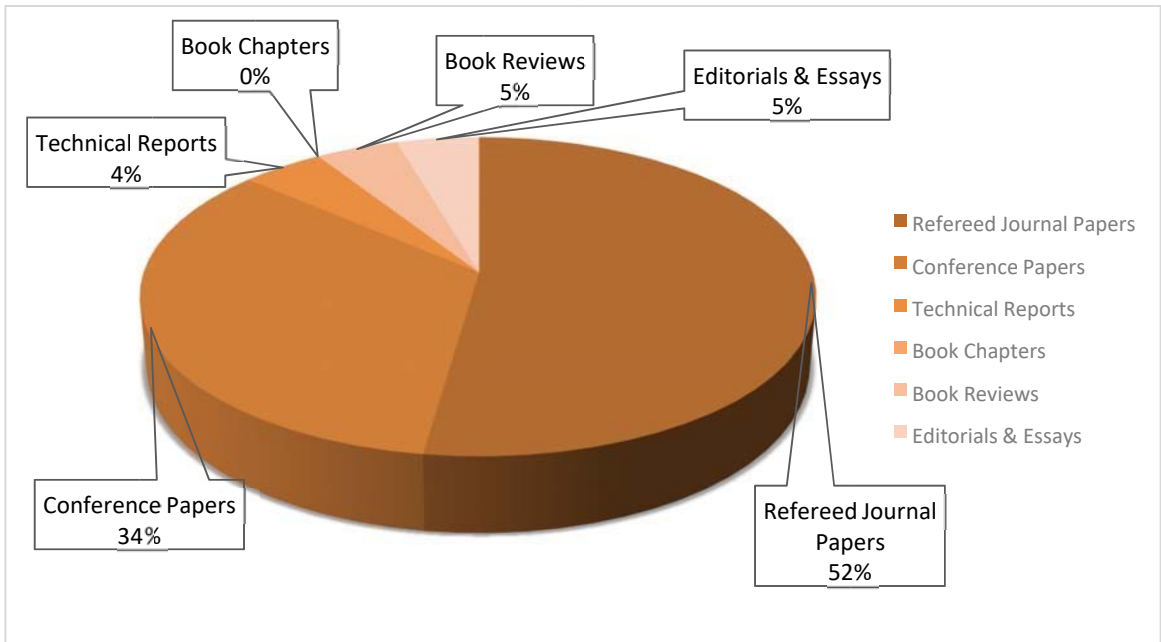


Figure 14: Publications by Faculty in 2013-2014

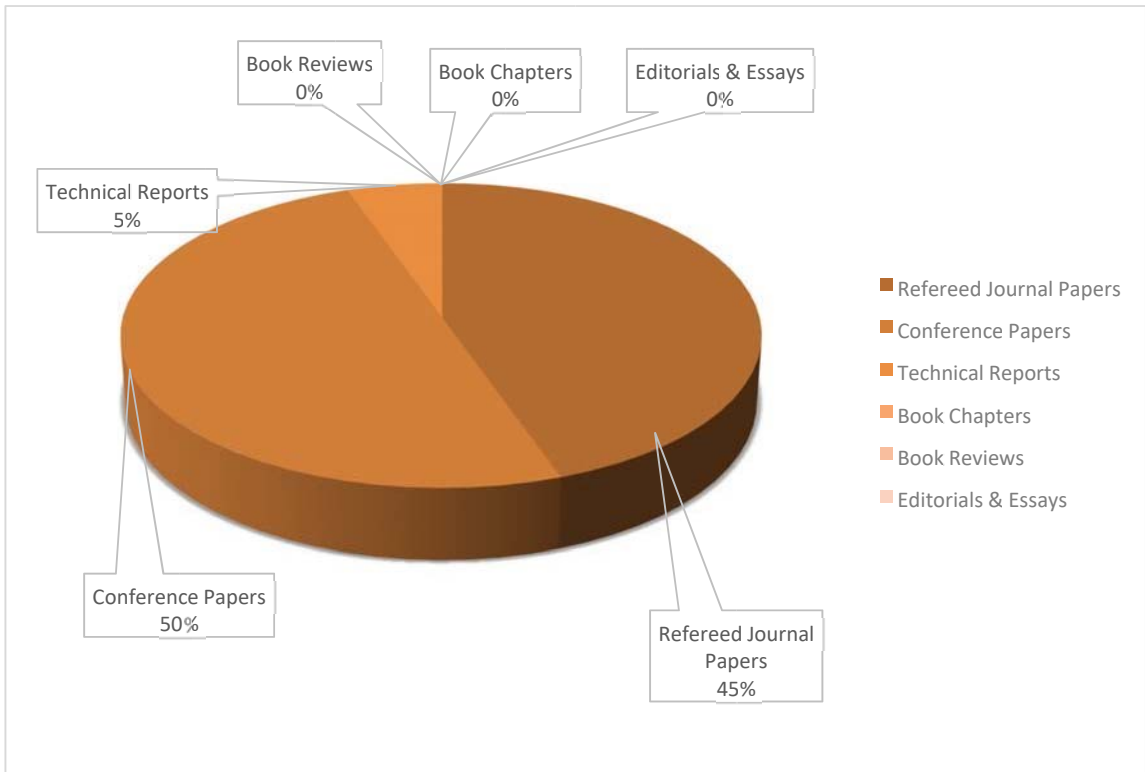


Figure 15: Publications by Faculty in 2014-2015.

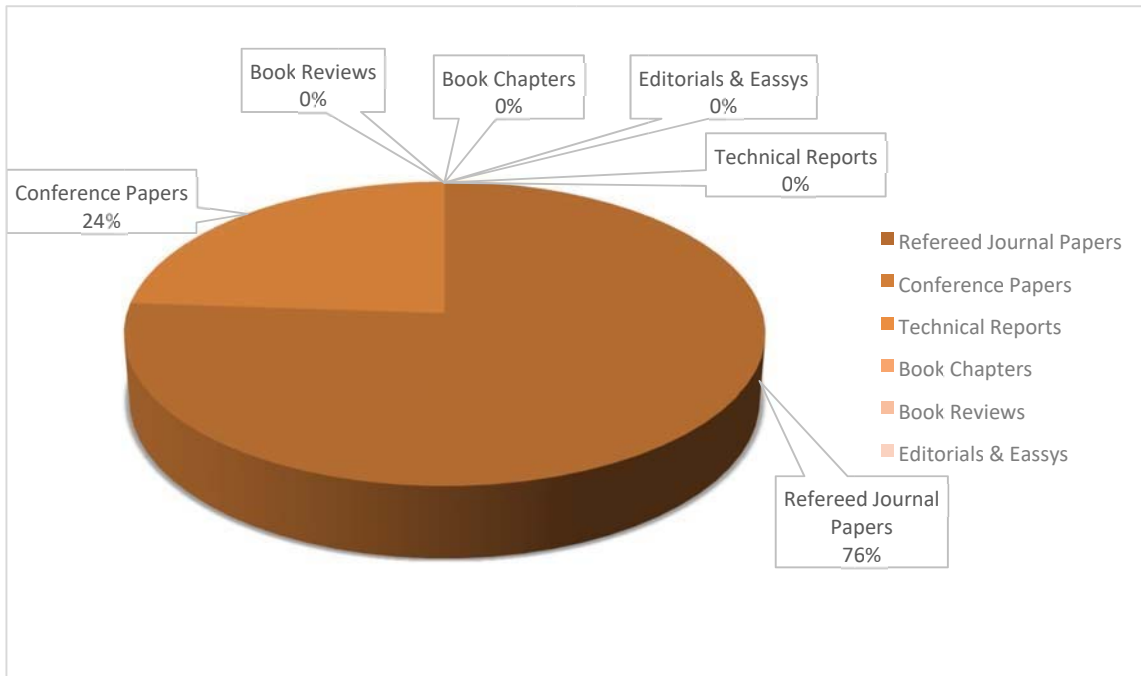


Figure 16: Publications by Faculty in 2016.

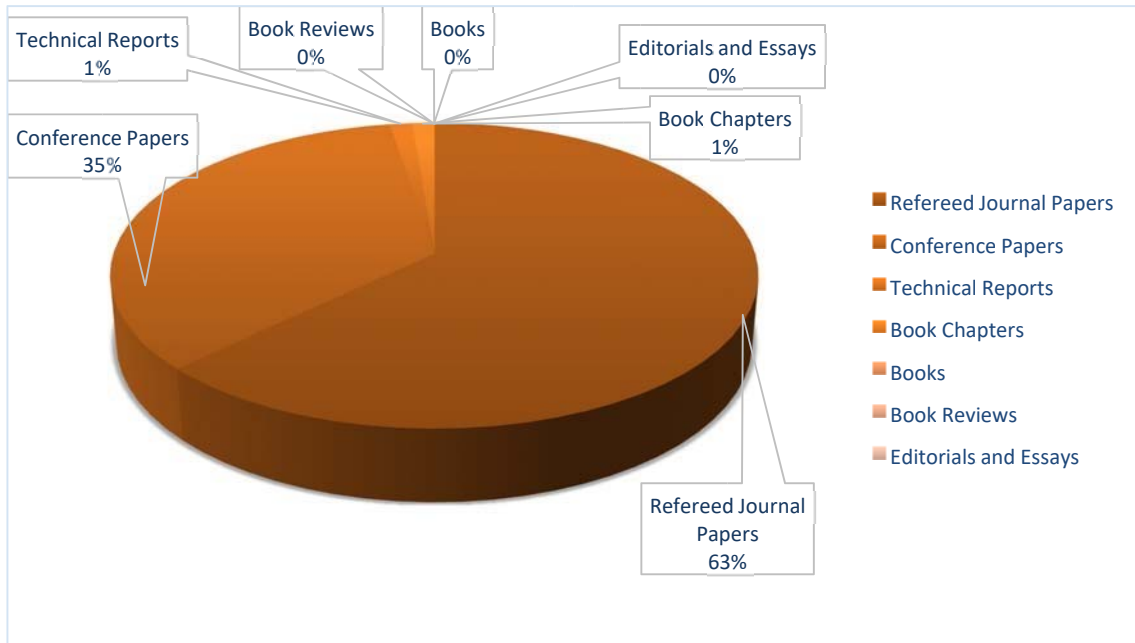


Figure 17: Publications by Faculty in 2017.

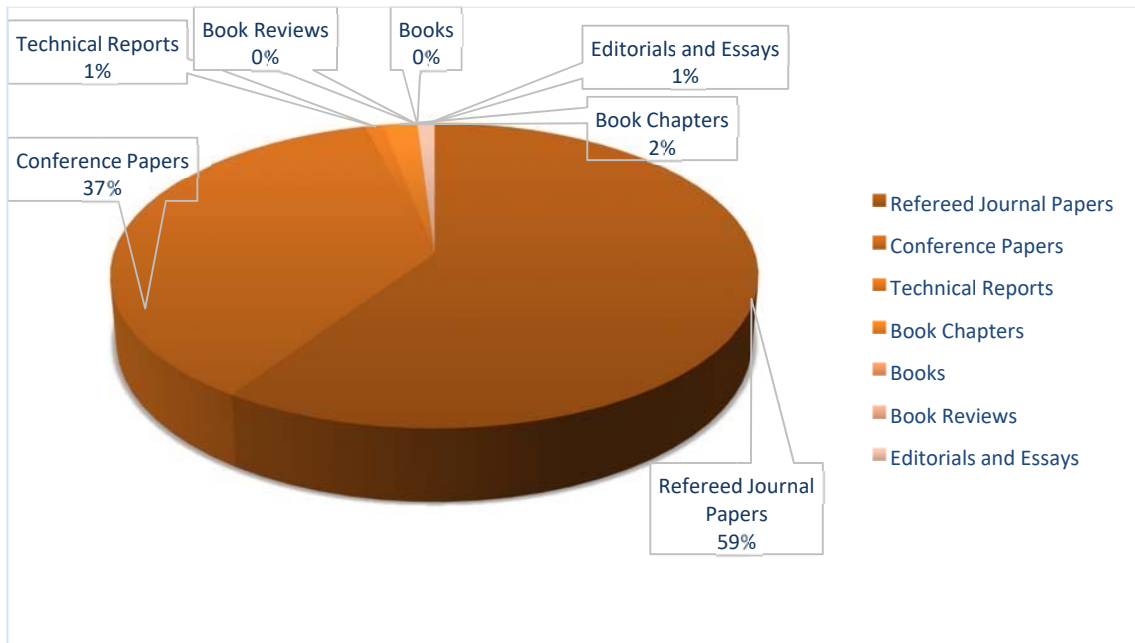


Figure 18: Publications by Faculty in 2018

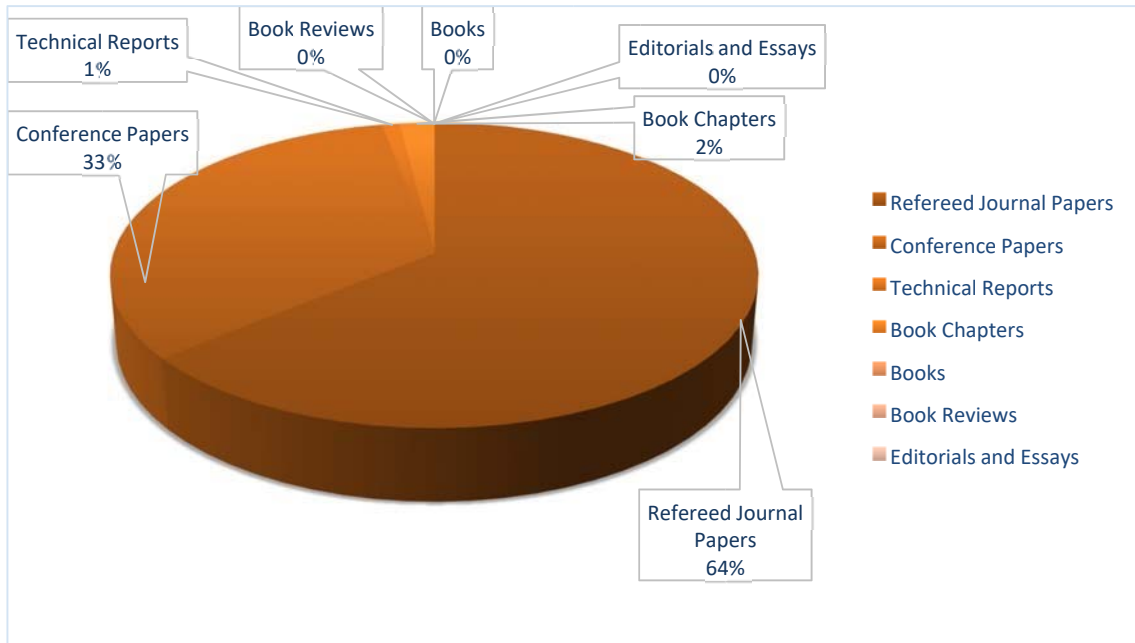


Figure 19: Publications by Faculty in 2019

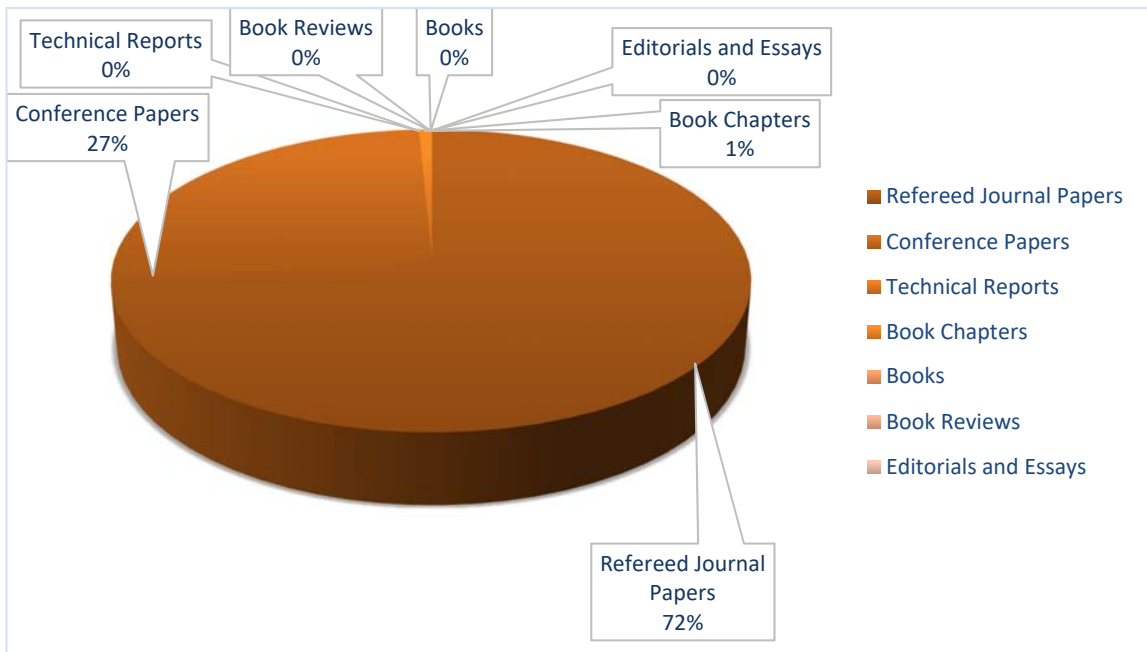


Figure 20: Publications by Faculty in 2020

Seminars, Public Lectures

The Department of Civil and Architectural Engineering held many seminars for the calendar year 2019. Department seminars were organized with the objective of sharing scientific researches and academic experiences. Appendix A2 lists detailed data for seminars and public lectures.

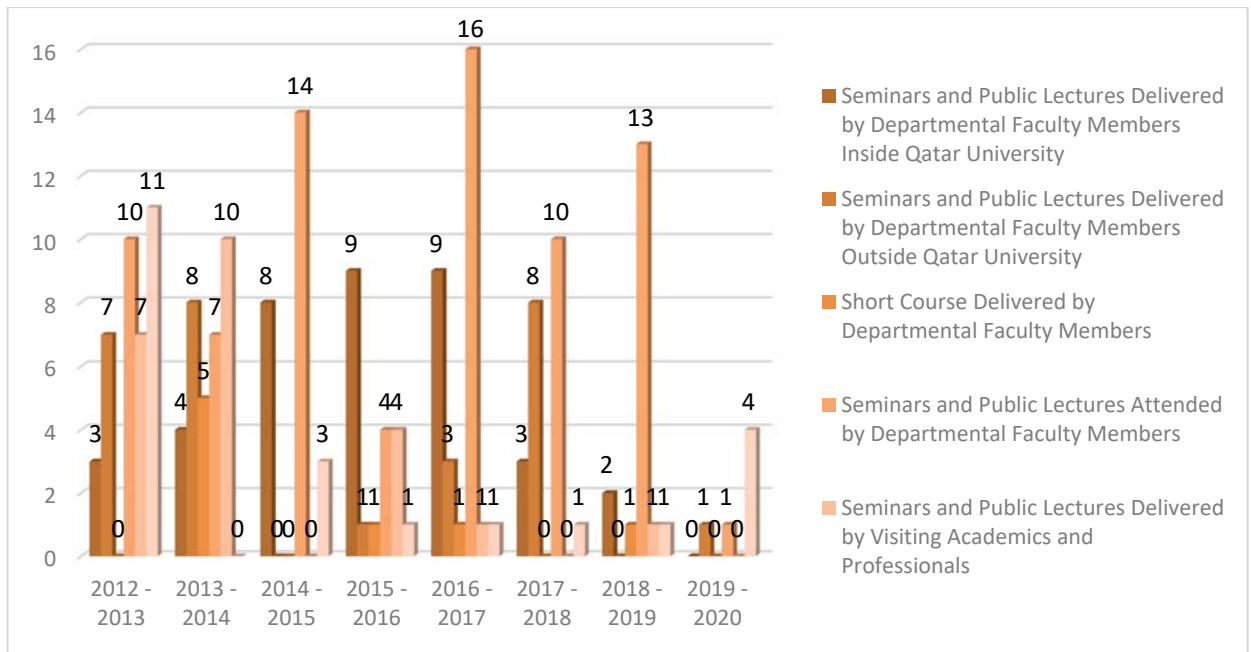


Figure 21: Seminars & Public Lectures in 2012-2020.

Academic experiences.

Appendix A2 lists detailed data for seminars, public lectures and short courses.

Professional Developments

A list of attended events namely conferences attended, workshops, training and visits attended and delivered, and other organized events is available in Appendix A3.

Service to Community and Outreach Programs

Appendix A3 lists detailed data for Service to Community and Outreach Programs.

Consultancies

List of consultancies provided are given in Appendix A3.

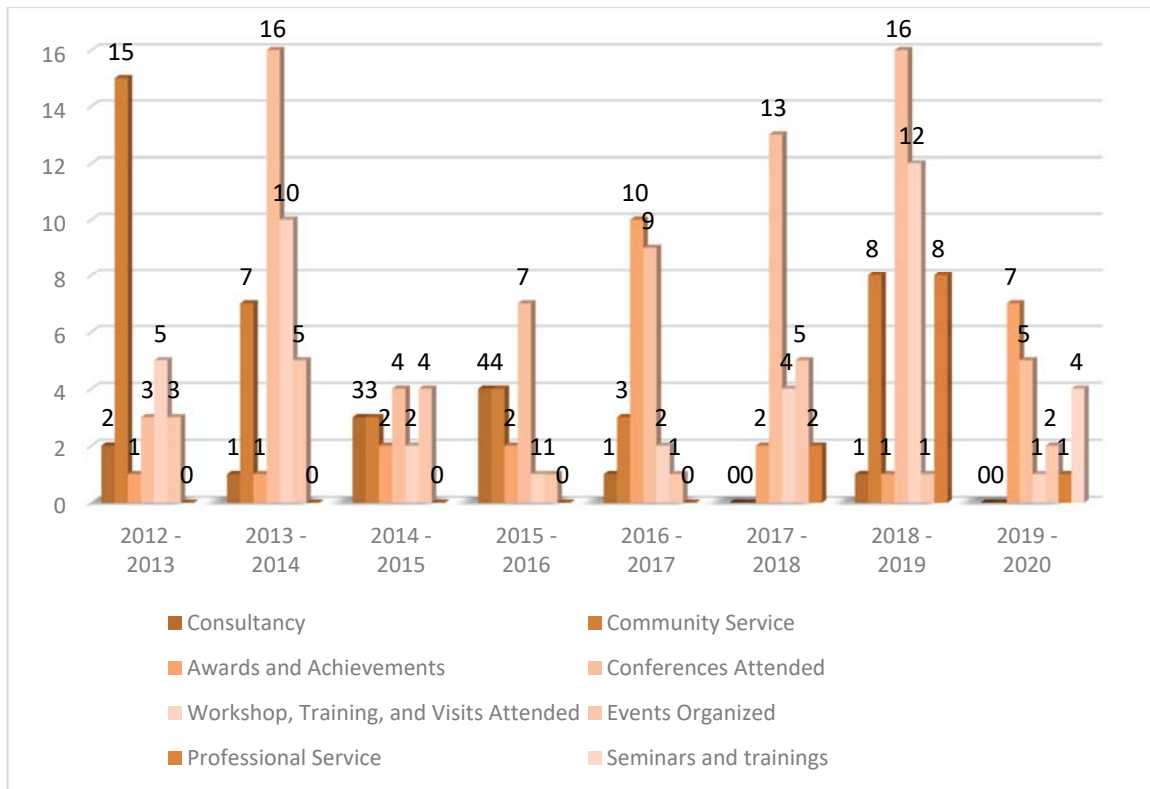


Figure 22: Faculty Activities in 2012-2020.

Appendix A1: List of Publications

Journal Papers

1. Al-Ansari, M. S., & Afzal, M. S. (2020b). Mathematical Model for Analysis of Uniaxial and Biaxial Reinforced Concrete Columns. *Advances in Civil Engineering*, 2020.
2. Taha, A., Alnahhal, W., & Alnuaimi, N. (2020). Bond durability of basalt FRP bars to fiber reinforced concrete in a saline environment. *Composite Structures*, 112277.
3. Ghachi, R. F., Alnahhal, W. I., Abdeljaber, O., Renno, J., Haque, A. B. M. T., Shim, J., & Aref, A. (2020). Optimization of Viscoelastic Metamaterials for Vibration Attenuation Properties. *International Journal of Applied Mechanics*.
4. Attia, K., El Refai, A., & Alnahhal, W. (2020). Flexural Behavior of Basalt Fiber–Reinforced Concrete Slab Strips with BFRP Bars: Experimental Testing and Numerical Simulation. *Journal of Composites for Construction*, 24(2), 4020007.

5. Sohail, Muazzam G, Kahraman, R., Alnuaimi, N. A., Gencturk, B., Alnahhal, W., Dawood, M., & Belarbi, A. (2020). Electrochemical behavior of mild and corrosion resistant concrete reinforcing steels. *Construction and Building Materials*, 232, 117205.
6. Sohail, Muazzam Ghous, Alnahhal, W., Taha, A., & Abdelaal, K. (2020). Sustainable alternative aggregates: Characterization and influence on mechanical behavior of basalt fiber reinforced concrete. *Construction and Building Materials*, 255, 119365.
7. Al-Nuaimi, N., Irshidat, M. R., & Salim, S. (2020). Effect of initial and final curing on performance of concrete in hot and arid climates. *Structural Concrete*, 21(3), 1144–1156.
8. Al Nuaimi, N., Sohail, M. G., Hawileh, R. A., Abdalla, J. A., & Douier, K. (2020). Durability of Reinforced Concrete Beams Strengthened by Galvanized Steel Mesh-Epoxy Systems under Harsh Environmental Conditions. *Composite Structures*, 112547.
9. Irshidat, M. R., & Al-Nuaimi, N. (2020). Industrial Waste Utilization of Carbon Dust in Sustainable Cementitious Composites Production. *Materials*, 13(15), 3295.
10. Irshidat, M. R., Al-Nuaimi, N., & Rabie, M. (2020). The Role of Polypropylene Microfibers in Thermal Properties and Post-Heating Behavior of Cementitious Composites. *Materials*, 13(12), 2676.
11. Sliem, M. H., Radwan, A. B., Mohamed, F. S., Alnuaimi, N. A., & Abdullah, A. M. (2020). An efficient green ionic liquid for the corrosion inhibition of reinforcement steel in neutral and alkaline highly saline simulated concrete pore solutions. *Scientific Reports*, 10(1), 1–15.
12. Imseeh, W. H., Alshibli, K. A., & Al-Raoush, R. I. (2020). Discrepancy in the Critical State Void Ratio of Poorly Graded Sand due to Shear Strain Localization. *Journal of Geotechnical and Geoenvironmental Engineering*, 146(8), 4020066.
13. Jarrar, Z. A., Al-Raoush, R. I., Hannun, J. A., Alshibli, K. A., & Jung, J. (2020). 3D synchrotron computed tomography study on the influence of fines on gas driven fractures in Sandy Sediments. *Geomechanics for Energy and the Environment*, 23, 100105.
14. Jarrar, Z. A., Alshibli, K. A., & Al-Raoush, R. I. (2020). Three-Dimensional Evaluation of Sand Particle Fracture Using Discrete-Element Method and Synchrotron Microcomputed Tomography Images. *Journal of Geotechnical and Geoenvironmental Engineering*, 146(7), 6020007.
15. Jarrar, Z. A., Alshibli, K. A., Al-Raoush, R. I., & Jung, J. (2020). 3D measurements of hydrate surface area during hydrate dissociation in porous media using dynamic 3D imaging. *Fuel*, 265, 116978.
16. Jung, J., Ryou, J. E., Al-Raoush, R. I., Alshibli, K., & Lee, J. Y. (2020). Effects of CH₄-CO₂ replacement in hydrate-bearing sediments on S-wave velocity and electrical resistivity. *Journal of Natural Gas Science and Engineering*, 82, 103506.
17. Kondaveeti, S., Patel, S. K. S., Woo, J., Wee, J. H., Kim, S.-Y., Al-Raoush, R. I., ... Lee, J.-K. (2020). Characterization of Cellobiohydrolases from *Schizophyllum commune* KMJ820. *Indian Journal of Microbiology*, 60(2), 160–166.
18. Mohanakrishna, G., Al-Raoush, R. I., & Abu-Reesh, I. M. (2020). Sewage enhanced bioelectrochemical degradation of petroleum hydrocarbons in soil environment through bioelectro-stimulation. *Biotechnology Reports*, e00478.

19. Reddy, M. V., Kumar, G., Mohanakrishna, G., Shobana, S., & Al-Raoush, R. I. (2020). Review on the production of medium and small chain fatty acids through waste valorization and CO₂ fixation. *Bioresource Technology*, 123400.
20. Shafieiyoun, S., Al-Raoush, R. I., Ismail, R. E., Nguелеu, S. K., Rezanezhad, F., & Van Cappellen, P. (2020). Effects of dissolved organic phase composition and salinity on the engineered sulfate application in a flow-through system. *Environmental Science and Pollution Research*, 1–13.
21. Shafieiyoun, S., Al-Raoush, R. I., Nguелеu, S. K., Rezanezhad, F., & Van Cappellen, P. (2020). Enhancement of Naphthalene Degradation by a Sequential Sulfate Injection Scenario in a (Semi)-Arid Coastal Soil: a Flow-Through Reactor Experiment. *Water, Air, & Soil Pollution*, 231(8), 1–16.
22. Shi, B., Nguелеu, S. K., Rezanezhad, F., Slowinski, S., Pronk, G. J., Smeaton, C. M., ... Van Cappellen, P. (2020). Sorption and desorption of the model aromatic hydrocarbons naphthalene and benzene: Effects of temperature and soil composition. *Front. Environ.Chem.* 1: 581103. Doi: 10.3389/Fenvc.
23. Du, X., Naji, K. K., Ebead, U., & Ma, J. (2020). Engineering instructors' professional agency development and identity renegotiation through engaging in pedagogical change towards PBL. *European Journal of Engineering Education*, 1–23.
24. Du, X., Naji, K. K., Sabah, S., & Ebead, U. (2020). Engineering Students' Conceptions of Collaboration, Group-Based Strategy Use, and Perceptions of Assessment in PBL: A Case Study in Qatar. *The International Journal of Engineering Education*, 36(1), 296–308.
25. Naji, Khalid Kamal, Ebead, U., Al-Ali, A. K., & Du, X. (2020). Comparing Models of Problem and Project-Based Learning (PBL) Courses and Student Engagement in Civil Engineering in Qatar. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(8), em1867.
26. Naji, Khalid Kamal, Du, X., Tarlochan, F., Ebead, U., Hasan, M. A., & Al-Ali, A. K. (2020). Engineering students' readiness to transition to emergency online learning in response to COVID-19: Case of Qatar. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(10).
27. Naji, K., Gunduz, M., & Salat, F. (2020). Assessment of preconstruction factors in sustainable project management performance. *Engineering, Construction and Architectural Management*.
28. Ali, W. A., Ibrahim, A. H., & Ebead, U. (2020). Flexural Behavior of RC Beams Strengthened with Steel Fibers. *International Journal of Applied Engineering Research*, 15(5), 468–480.
29. Ebead, U. A., Shrestha, K. C., & Saeed, H. (2020). Development of high-strength lightweight non-autoclaved aerated concrete. *Proceedings of the Institution of Civil Engineers-Structures and Buildings*, 173(10), 705–714.
30. El-Sherif, H., Wakjira, T. G., & Ebead, U. (2020). Flexural strengthening of reinforced concrete beams using hybrid near-surface embedded/externally bonded fabric-reinforced cementitious matrix. *Construction and Building Materials*, 238, 117748.
31. Ibrahim, M., Wakjira, T., & Ebead, U. (2020). Shear strengthening of reinforced concrete deep beams using near-surface mounted hybrid carbon/glass fibre reinforced polymer strips. *Engineering Structures*, 210, 110412.
32. Younis, A., Ebead, U., Suraneni, P., & Nanni, A. (2020a). Cost effectiveness of reinforcement alternatives for a concrete water chlorination tank. *Journal of Building Engineering*, 27, 100992.

33. Younis, A., Ebead, U., & Shrestha, K. (2020). Tensile characterization of multi-ply fabric-reinforced cementitious matrix strengthening systems. *Structural Concrete*, 21(2), 713–723.
34. Younis, A., Ebead, U., Suraneni, P., & Nanni, A. (2020b). Performance of Seawater-Mixed Recycled-Aggregate Concrete. *Journal of Materials in Civil Engineering*, 32(1), 4019331.
35. Younis, A., Ebead, U., Suraneni, P., & Nanni, A. (2020c). Short-term flexural performance of seawater-mixed recycled-aggregate GFRP-reinforced concrete beams. *Composite Structures*, 236, 111860.
36. Wakjira, T. G., & Ebead, U. (2020a). Shear span-to-depth ratio effect on steel reinforced grout strengthened reinforced concrete beams. *Engineering Structures*, 216, 110737.
37. Wakjira, T., & Ebead, U. (2020a). Simplified Compression Field Theory-Based Model for Shear Strength of Fabric-Reinforced Cementitious Matrix-Strengthened Reinforced Concrete Beams. *ACI Structural Journal*, 117(2).
38. Wakjira, T. G., & Ebead, U. (2020b). Strengthening of reinforced concrete beams in shear using different steel reinforced grout techniques. *Structural Concrete*.
39. Wakjira, T. G., Nehdi, M. L., & Ebead, U. (2020). Fractional factorial design model for seismic performance of RC bridge piers retrofitted with steel-reinforced polymer composites. *Engineering Structures*, 221, 111100.
40. Eid, H. T. (2020). Undrained interface shear strength of fine-grained soils for near-shore marine pipelines. *Geotechnical Testing Journal*, 43(2), 495–516.
41. da Silva Burke, T S, & Elshafie, M. (2020). Geosynthetic-reinforced soils above voids: Observation of soil and geosynthetic deformation mechanisms. *Geotextiles and Geomembranes*.
42. da Silva Burke, Talia S, & Elshafie, M. Z. E. B. (2020a). Arching in granular soils: experimental observations of deformation mechanisms. *Géotechnique*, 1–13.
43. da Silva Burke, Talia S, & Elshafie, M. Z. E. B. (2020b). Arching in granular soils: limit state equilibrium. *Géotechnique*, 1–14.
44. Faustin, N. E., Elshafie, M. Z. E. B., Mair, R. J., & Quigg, G. (2020). Discussion: Case studies of circular shaft construction in London. *Proceedings of the Institution of Civil Engineers-Geotechnical Engineering*, 173(1), 92.
45. Sun, Q., Elshafie, M., Barker, C., Fisher, A., Schooling, J., & Rui, Y. (2020). Thermal integrity testing of cast in situ piles: An alternative interpretation approach. *Structural Health Monitoring*, 1475921720960042.
46. Xu, J., Butler, L. J., & Elshafie, M. Z. E. B. (2020). Experimental and numerical investigation of the performance of self-sensing concrete sleepers. *Structural Health Monitoring*, 19(1), 66–85.
47. Ye, C., Butler, L., Elshafie, M., & Middleton, C. (2020a). Evaluating prestress losses in a prestressed concrete girder railway bridge using distributed and discrete fibre optic sensors. *Construction and Building Materials*, 247, 118518.
48. Gunduz, M., Naji, K., & Al-Salahi, K. (2020). Evaluation of Critical Success Factors (CSFs) in Selecting Building Contractors through Pareto and Analytical Hierarchy Process. *Journal of Engineering Research*, 8(4).

49. Naji, Khalid K, Mansour, M. M., & Gunduz, M. (2020). Methods for Modeling and Evaluating Construction Disputes: A Critical Review. *IEEE Access*, 8, 45641–45652.
50. Gunduz, M., & Abdi, E. A. (2020). Motivational Factors and Challenges of Cooperative Partnerships between Contractors in the Construction Industry. *Journal of Management in Engineering*, 36(4), 4020018.
51. Gunduz, M., & Abu-Hijleh, A. (2020). Assessment of Human Productivity Drivers for Construction Labor through Importance Rating and Risk Mapping. *Sustainability*, 12(20), 8614.
52. Gunduz, M., & Almuajebh, M. (2020). Critical Success Factors for Sustainable Construction Project Management. *Sustainability*, 12(5), 1990.
53. Gunduz, M., & Elsherbeny, H. A. (2020a). Construction Contract Administration Performance Assessment Tool by Using a Fuzzy Structural Equation Model. *Sustainability*, 12(2), 523.
54. Gunduz, M., & Elsherbeny, H. A. (2020b). Critical assessment of construction contract administration using fuzzy structural equation modeling. *Engineering, Construction and Architectural Management*.
55. Gunduz, M., & Elsherbeny, H. A. (2020c). Operational framework for managing construction-contract administration practitioners' perspective through modified Delphi method. *Journal of Construction Engineering and Management*, 146(3), 4019110.
56. Gunduz, M., & Khader, B. K. (2020). Construction Project Safety Performance Management Using Analytic Network Process (ANP) as a Multicriteria Decision-Making (MCDM) Tool. *Computational Intelligence and Neuroscience*, 2020.
57. Gunduz, M., & Mohammad, K. O. (2020). Assessment of change order impact factors on construction project performance using analytic hierarchy process (AHP). *Technological and Economic Development of Economy*, 26(1), 71–85.
58. Gunduz, M., & Tehemar, S. R. (2020). Assessment of delay factors in construction of sport facilities through multi criteria decision making. *Production Planning & Control*, 31(15), 1291–1302.
59. Gunduz, M., & Al-Ruwaili, A. (2020). Tendering Process Improvement with Prototype Designs Implementation. *Advances In Natural And Applied Sciences*
60. Sirin, O., Gunduz, M., & Moussa, A. (2020). Application of Tools of Quality Function Deployment and Modified Balanced Scorecard for Optimal Allocation of Pavement Management Resources. *IEEE Access*, 8, 76399–76410.
61. Sirin, O., Gunduz, M., & Shamiyeh, M. E. (2020). Application of analytic hierarchy process (AHP) for sustainable pavement performance management in Qatar. *Engineering, Construction and Architectural Management*.
62. Alfahel, R., Azzam, R. S., Hafiz, M., Hawari, A. H., Pandey, R. P., Mahmoud, K. A., ... Elzatahry, A. A. (2020). Fabrication of fouling resistant Ti3C2Tx (MXene)/cellulose acetate nanocomposite membrane for forward osmosis application. *Journal of Water Process Engineering*, 38, 101551.
63. Alkhatib, A. M., Hawari, A. H., Hafiz, M. A., & Benamor, A. (2020). A novel cylindrical electrode configuration for inducing dielectrophoretic forces during electrocoagulation. *Journal of Water Process Engineering*, 35, 101195.

64. Hafiz, M. A., Hawari, A. H., Das, P., Khan, S., & Altaee, A. (2020). Comparison of dual stage ultrafiltration and hybrid ultrafiltration-forward osmosis process for harvesting microalgae (*Tetraselmis* sp.) biomass. *Chemical Engineering and Processing-Process Intensification*, 157, 108112.
65. Hawari, A., Alkadour, F., Elmasry, M., & Zayed, T. (2020). A state of the art review on condition assessment models developed for sewer pipelines. *Engineering Applications of Artificial Intelligence*, 93, 103721.
66. Hawari, A. H., Alkhatib, A. M., Das, P., Thaher, M., & Benamor, A. (2020). Effect of the induced dielectrophoretic force on harvesting of marine microalgae (*Tetraselmis* sp.) in electrocoagulation. *Journal of Environmental Management*, 260, 110106.
67. Hawari, A. H., Alkhatib, A. M., Hafiz, M., & Das, P. (2020). A novel electrocoagulation electrode configuration for the removal of total organic carbon from primary treated municipal wastewater. *Environmental Science and Pollution Research*, 1–11.
68. Hawari, A. H., Hafiz, M., Yasir, A. T., Alfahel, R., & Altaee, A. (2020). Evaluation of ultrafiltration and multimedia filtration as pretreatment process for forward osmosis. *DESALINATION AND WATER TREATMENT*, 196, 84–92.
69. Hawaria, A. A., Al-Ghoul, M., Hafiza, M. H., Ahmed, T., Yasir, A. T., Aljaml, K. K., & Ltaief, A. A. (2020). Steel slag promoted electrocoagulation process for the treatment of produced water. *DESALINATION AND WATER TREATMENT*, 177, 80–88.
70. Ibrar, I., Yadav, S., Altaee, A., Hawari, A., Nguyen, V., & Zhou, J. (2020). A novel empirical method for predicting concentration polarization in forward osmosis for single and multicomponent draw solutions. *Desalination*, 494, 114668.
71. Jawad, J., Hawari, A. H., & Zaidi, S. (2020). Modeling of forward osmosis process using artificial neural networks (ANN) to predict the permeate flux. *Desalination*, 484, 114427.
72. Yadav, S., Ibrar, I., Bakly, S., Khanafer, D., Altaee, A., Padmanaban, V. C., ... Hawari, A. H. (2020). Organic Fouling in Forward Osmosis: A Comprehensive Review. *Water*, 12(5), 1505.
73. Yadav, S., Saleem, H., Ibrar, I., Naji, O., Hawari, A. A., Alanezi, A. A., ... Zhou, J. (2020). Recent developments in forward osmosis membranes using carbon-based nanomaterials. *Desalination*, 482, 114375.
74. Abdeljaber, O., Hussein, M., Avci, O., Davis, B., & Reynolds, P. (2020). A novel video-vibration monitoring system for walking pattern identification on floors. *Advances in Engineering Software*, 139, 102710.
75. Alabbasi, S., Hussein, M., Abdeljaber, O., & Avci, O. (2020). A numerical and experimental investigation of a special type of floating-slab tracks. *Engineering Structures*, 215, 110734.
76. Hussein, A. (2020). A novel test method for tendon re-anchorage in bonded post tensioned concrete using ESPI full field measurement. *Materials and Structures*, 53, 59.
77. Abdel Warith, K., Kandil, A., Haddock, J., & Shaaban, K. (2020). A new framework for addressing high-level decisions related to sustainable transportation development. *International Journal of Sustainable Transportation*, 1–17.

78. Abdella, G. M., & Shaaban, K. (2020). Modeling the Impact of Weather Conditions on Pedestrian Injury Counts Using LASSO-Based Poisson Model. *Arabian Journal for Science and Engineering*, 1–12.
79. Elhassy, Z., Abou-Senna, H., Shaaban, K., & Radwan, E. (2020). The Implications of Converting a High-Volume Multilane Roundabout into a Turbo Roundabout. *Journal of Advanced Transportation*, 2020.
80. Shaaban, K. (2020). Why Don't People Ride Bicycles in High-Income Developing Countries, and Can Bike-Sharing Be the Solution? The Case of Qatar. *Sustainability*, 12(4), 1693.
81. Shaaban, K., & Abdelwarith, K. (2020a). Pedestrian Attribute Analysis Using Agent-Based Modeling. *Applied Sciences*, 10(14), 4882.
82. Shaaban, K., & Abdelwarith, K. (2020b). Understanding the association between cell phone use while driving and seat belt noncompliance in Qatar using logit models. *Journal of Transportation Safety & Security*, 12(2), 292–308.
83. Shaaban, K., Gaweesh, S., & Ahmed, M. M. (2020). Investigating in-vehicle distracting activities and crash risks for young drivers using structural equation modeling. *PLoS One*, 15(7), e0235325.
84. Shaaban, K., & Hamad, H. (2020). Critical Gap Comparison between One-, Two-, and Three-Lane Roundabouts in Qatar. *Sustainability*, 12(10), 4232.
85. Shaaban, K., Khan, M. A., & Hamila, R. (2020). Effect of Distance between Ramp and Upstream Signal on Ramp Meter Operation. *Journal of Traffic and Transportation Management*, 1(2), 43–49.
86. Shaaban, K., & Maher, A. (2020). Using the theory of planned behavior to predict the use of an upcoming public transportation service in Qatar. *Case Studies on Transport Policy*, 8(2), 484–491.
87. Shaaban, K., & Abdur-Rouf, K. (2020). Assessing Walking and Cycling around Schools. *Sustainability*, 12(24), 10607.
88. Al Mamun, A., & Sirin, O. (2020). Nanoscale Evaluation of Multi-Walled Carbon Nanotube's Performance on Resisting Oxidization of Asphalt. *Materials Science Forum* (Vol. 982, pp. 195–200). *Trans Tech Publ*.
89. Sadeq, M., Huang, C.-W., Masad, E., Al-Khalid, H., & Sirin, O. (2020). A framework for the analysis of damage and recovery characteristics of asphalt mixtures. *Road Materials and Pavement Design*, 1–14.
90. Sirin, O., Ohiduzzaman, M., Kassem, E., & Paul, D. K. (2020). Comprehensive evaluation of long-term aging of asphalt mixtures in hot climatic condition. *Road Materials and Pavement Design*, 21(4), 927–949.
91. Ahmad, A. M., Holden, B., Krystalis, I., Naji, K., Demain, P., & Price, A. (2020). People Dimension towards BIM Implementation in Professional Services Firms in Construction. *Solid State Technology*, 63(5), 4424–4444.
92. Chahrour, R., Hafeez, M. A., Ahmad, A. M., Sulieman, H. I., Dawood, H., Rodriguez-Trejo, S., ... Dawood, N. (2020). Cost-benefit analysis of BIM-enabled design clash detection and resolution. *Construction Management and Economics*, 1–18.

93. Royvaran, M., Avci, O., & Davis, B. (2020). Analysis of floor vibration evaluation methods using a large database of floors framed with W-Shaped members subjected to walking excitation. *Journal of Constructional Steel Research*, 164, 105764.
94. Abdeljaber, O., Younis, A., & Alhajyaseen, W. (2020b). Extraction of Vehicle Turning Trajectories at Signalized Intersections Using Convolutional Neural Networks. *Arabian Journal for Science and Engineering*, 1–15.
95. Khandakar, A., Chowdhury, M. E. H., Gonzales Jr, A., Pedro, S., Touati, F., Emadi, N. Al, & Ayari, M. A. (2020). Case study to analyze the impact of multi-course project-based learning approach on education for sustainable development. *Sustainability*, 12(2), 480.
96. Rahman, T., Khandakar, A., Kadir, M. A., Islam, K. R., Islam, K. F., Mazhar, R., ... Mahbub, Z. Bin. (2020). Reliable tuberculosis detection using chest X-ray with deep learning, segmentation and visualization. *IEEE Access*, 8, 191586–191601.

Top Tier Journals

Table 7: List of Top Tier Journals out of the publications

No.	Journal	Number of publications
1	Journal of Water Process Engineering	2
2	Chemical Engineering and Processing-Process Intensification	1
3	Engineering Applications of Artificial Intelligence	1
4	Journal of Environmental Management	1
5	Environmental Science and Pollution Research	2
6	Desalination	3
7	Water	1
8	PLoS One	1
9	IEEE Access	3
10	Geotextiles and Geomembranes	1
11	Géotechnique	2
12	Structural Health Monitoring	2
13	Construction and Building Materials	4
14	Advances in Engineering Software	1
15	Engineering Structures	4
16	Materials and Structures	1
17	International Journal of Sustainable Transportation*	1
18	Sustainability**	7
19	Applied Sciences ***	1
20	Journal of Management in Engineering	1
21	Journal of Construction Engineering and Management****	1
22	Computational Intelligence and Neuroscience*****	1
23	Technological and Economic Development of Economy	1
24	Production planning & control	1

25	Structural concrete	3
26	Composite structures	3
27	Materials	2
28	Scientific reports	1
29	Road Materials and Pavement Design	2
30	Journal of Constructional Steel Research	1
31	International Journal of Applied Mechanics	1
32	Journal of Geotechnical and Geoenvironmental Engineering	2
33	Fuel	1
34	Journal of Natural Gas Science and Engineering	1
35	Bioresource Technology	1
36	Journal of Building Engineering	1
37	Journal of Materials in Civil Engineering*****	1
38	Journal of Composites for Construction	1
49	Engineering, Construction and Architectural Management*****	3
	Total	68

Note:

* Q2 in Transportation and environmental studies / Q3 in Green and sustainable science and technology

** Q2 in environmental studies / Q3 in Green and sustainable science and technology

*** Q2 in Chemistry, multidisciplinary Engineering, multidisciplinary Physics, applied / Q3 in Material science, multidisciplinary

**** Q2 in Engineering, Civil, Construction and building technology/ Q3 in Engineering, Industrial

***** Q2 in Mathematical & Computational biology/ Q3 Neurosciences

***** Q2 in Construction & Building Technology, Engineering, Civil/ Q3 in Materials Science, Multidisciplinary.

***** Q2 in Engineering, Civil/ Q3 in Engineering, Industrial

Second Tier Journals

Table 8: List of Second Tier Journals out of the publications

No.	Journal	Number of publications
1	ACI Structural Journal	1
2	Desalination And Water Treatment	2
3	Geotechnical Testing Journal	1

4	Arabian Journal for Science and Engineering	2
	Indian Journal of Microbiology	1
5	Journal of Advanced Transportation	1
6	Journal of Transportation Safety & Security	1
7	Solid State Technology	1
8	Journal of Engineering Research	1
9	EURASIA Journal of Mathematics Science and Technology Education	2
10	Advances in Civil Engineering	1
11	Materials Science Forum	1
12	Geomechanics for Energy and the Environment	1
13	Proceedings of the Institution of Civil Engineers-Structures and Buildings	1
14	Proceedings of the Institution of Civil Engineers-Geotechnical Engineering	1
	Total	18

Other Journals

Table 9: List of other Journals out of the publications

No.	Journal	Number of publications
1	Journal of Traffic and Transportation Management	1
2	Case Studies on Transport Policy	1
3	Construction Management and Economics	1
4	European Journal of Engineering Education	1
5	The International Journal of Engineering Education	1
6	Biotechnology reports	1
7	Water, Air, & Soil Pollution	1
8	Frontiers in Environmental Chemistry	1
9	International Journal of Applied Engineering Research	1
10	Advances in Natural And Applied Sciences	1
	Total	10

Conference Publications

1. Hafiz, M., Hawari, A. H., & Alfahel, R. (2020). Treatment of Wastewater Using Reverse Osmosis for Irrigation Purposes. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
2. Al Hawari, A., Tariq, A., Yasir, A. T., & Ayari, M. A. (2020). Utilizing Steel Slag in the Removal of Suspended Solids from Dewatered Construction Water. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.

3. Alfahel, R., Hafiz, M., & Hawari, A. H. (2020). Impact of Draw Solution Concentration on Forward Osmosis Process: A Simulation Study. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
4. Eid, H. (2020). Fully Softened and Residual Shear Strengths of Midra Shale. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
5. Eid, H., O'Sullivan, B., Elshafie, M., Stollberg, R., & Kalin, R. (2020). Predicted and Back-calculated Coefficients of Permeability of Randomly Fractured Rock Mass: A Case Study. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
6. Ghanim, M. S., Shaaban, K., & Miqdad, M. (2020). An Artificial Intelligence Approach to Estimate Travel Time along Public Transportation Bus Lines. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
7. Shaaban, K., Abouzaid, A., Musleh, A., & Hout, M. F. (2020). An Investigation of Traffic Noise Levels Around a Major Hospital in Qatar. In International Conference on Applied Human Factors and Ergonomics (pp. 354–360). Springer.
8. Shaaban, K., & Ghanim, M. S. (2020). Evaluating the Operational Impact of Left-Turn Exclusive Number of Lanes: A Case Study from Qatar. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
9. Ibrahim, M., Ebead, U., & Al-Ansari, M. (2020). Life Cycle Assessment for Fiber-Reinforced Polymer (FRP) Composites Used in Concrete Beams: A State-of-the-Art Review. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
10. Alhaj, K. M. A., Biscontin, G., Elshafie, M., & Osman, A. S. (2020). Water retention and characteristic curves representing tropical clay soils from Africa. E3S Web of Conferences, 24-26 June 2020 in Lisbon, Portugal
11. Sun, Q., Elshafie, M. Z. E. B., & Rui, Y. (2020). Concrete Hydration Model Characterization Using Evolutionary Optimization. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
12. Alabbasi, Y., & Hussein, M. (2020). Comparison of the Mechanical Behavior of Railroad Ballast in a Box Test under Sinusoidal and Realistic Train Loadings Using Discrete Element Method. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
13. Badri, Y., Hussein, M., Sassi, S., & Renno, J. (2020). Investigation of the Effect of the Force-Frequency on the Behaviour of a New Viscous Damper for Railway Applications. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
14. Edirisinghe, T., Talbot, J. P., & Hussein, M. F. M. (2020). Accounting for the influence of the free surface on the vibration response of underground railway tunnels: a new iterative method, ISMA 2020-International Conference on Noise and Vibration Engineering, 7-9 September.
15. Gunduz, M., & Elsherbeny, H. A. (2020d). Practical Implementation of Contract Administration Performance Model in Qatar Construction Projects. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.

16. Rabie, M., Irshidat, M. R., & Al Nuaimi, N. (2020). Effect of Alkaline Activators on the Mechanical Properties of Geopolymer Mortar. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
17. Rabie, M., Fayyad, E. M., Irshidat, M. R., Al Nuaimi, N., & Hassan, M. K. (2020). Evaluation of Bond Strength Between Carbon Fiber Reinforced Polymer (CFRP) Composites with Modified Epoxy Resins and Concrete. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
18. Irshidat, M. R., Al-Nuaimi, N., Salim, S., & Rabie, M. (2020). Carbon Nanotubes Dosage Optimization for Strength Enhancement of Cementitious Composites. *Procedia Manufacturing*, 44, 366–370. 1st international conference on Optimization-Driven Architectural Design, Amman, Jordan, November 5th - 7th 2019
19. Irshidat, M. R., Al Nuaimi, N., Salim, S., & Rabie, M. (2020). Dosage Optimization of Polypropylene Fiber for Strength Enhancement of Cementitious Composites. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
20. Sohail, M. G., Kahraman, R., Al Nuaimi, N., Alnahhal, W., & Wasee, M. (2020). High and Ultra-high Performance Concretes: A Solution to Reinforced Concrete Durability under Harsh Climate of Arabian Gulf. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
21. Al Mamun, A., Sirin, O., & Masad, E. (2020). Development of Warm Mix Asphalt with the Aid of Microstructural Characterization. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
22. Sirin, O., Ohiduzzaman, M., & Kassem, E. (2020). Evaluation of Federal Highway Administration's Traffic Noise Model for Pavements in Qatar. *ICACE* (pp. 143–150). Springer. 3rd International Conference on Architecture and Civil Engineering, Kuala Lumpur, Malaysia. 26 - 27 June 2019
23. Hannun, J., Al-Raoush, R., Jarrar, Z., Alshibli, K., & Jung, J. (2020). Use of 3D Images to Evaluate Formation Damage Induced by Montmorillonite Fines in Porous Media Systems. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
24. Ismail, R., Shafieiyoun, S., & Al-Raoush, R. I. (2020). Influence of Water Table Fluctuation on Natural Source Zone Depletion in Hydrocarbon Contaminated Subsurface Environments. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
25. Jarrar, Z., Al-Raoush, R., Alshibli, K., & Jung, J. (2020a). Dynamic 3D imaging of gas hydrate kinetics using synchrotron computed tomography. In *E3S Web of Conferences* (Vol. 205, p. 11004). 2nd International Conference on Energy Geotechnics, La Jolla, CA, United States, September 20-23, 2020.
26. Jarrar, Z., Al-Raoush, R., Alshibli, K., & Jung, J. (2020b). Dynamic Imaging of Hydrate Specific Area Evolution during Xenon Hydrate Formation. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.

27. Nishad, S., & Al-Raoush, R. I. (2020b). Impact of Ionic Strength on Colloid Retention in a Porous Media: A Micromodel Study. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
28. Abdeljaber, O., Younis, A., & Alhajyaseen, W. (2020a). Analysis of the Trajectories of Left-turning Vehicles at Signalized Intersections. Transportation Research Procedia, 48, 1288–1295. World Conference on Transport Research – WCTR 2019, Mumbai, 26-30 May 2019
29. Fatma, G. R., Alnahhal, W., & Abdeldjaber, O. (2020). Cantilever Beam Metastructure for Passive Broadband Vibration Suppression. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
30. Afzal, M. S., & Ebead, U. (2020). Verification of ACI-549 Code for Flexural Strengthening of Reinforced Concrete Beams Using FRCM. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
31. El-Sherif, H., & Ebead, U. (2020). Near Surface Embedded Application for FRCM Strengthening of RC Beams in Flexure. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
32. Younis, A., & Ebead, U. (2020a). Effects of Using Seawater and Recycled Coarse Aggregates on Plain Concrete Characteristics. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
33. Younis, A., & Ebead, U. (2020b). Long-Term Cost Performance of Corrosion-Resistant Reinforcements in Structural Concrete. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
34. Wakjira, T., Ibrahim, M., Sajjad, B., & Ebead, U. (2020). Shear capacity of reinforced concrete deep beams using genetic algorithm. Materials Science and Engineering (Vol. 910, p. 12002). 3rd International Conference on Civil Engineering and Architecture (ICCEA 2020) 28-30 June 2020, Compiègne, France.
35. Wakjira, T., & Ebead, U. (2020b). Steel Reinforced Grout for Strengthening of RC T-section Beams Deficient in Shear. International Conference on Civil Infrastructure and Construction (CIC 2020), Doha, Qatar, 2-5 February 2020.
36. Abushanab, A., & Alnahhal, W. (2020). Performance of Basalt Fiber Reinforced Continuous Beams with Basalt FRP Bars. Materials Science and Engineering (Vol. 910, p. 12004). 3rd International Conference on Civil Engineering and Architecture (ICCEA 2020) 28-30 June 2020, Compiègne, France.

Top Tier Conferences (Indexed in Web of Science)

Table 10: List of Top Tier Conferences out of the publications

No.	Conference	Number of publications
1	World Conference on Transport Research – WCTR 2019, Mumbai, India	1

2	ISMA 2020-International Conference on Noise and Vibration Engineering	1
	Total	2

Second Tier Conferences (Indexed in Scopus only)

Table 11: List of second Tier Conferences out of the publications

No.	Conference	Number of publications
1	2nd International Conference on Energy Geotechnics, La Jolla, CA, United States	1
2	E3S Web of conferences	1
3	1st international conference on Optimization-Driven Architectural Design, Amman, Jordan	1
	Total	3

Others

Table 12: List of other Conferences out of the publications

No.	Conference	Number of publications
1	International Conference on Civil Infrastructure and Construction (CIC), Doha, Qatar	27
2	International Conference on Applied Human Factors and Ergonomics	1
3	3rd International Conference on Civil Engineering and Architecture (ICCEA 2020) 28-30 June 2020, Compiègne, France	2
4	3rd International Conference on Architecture and Civil Engineering, Kuala Lumpur, Malaysia	1
	Total	31

Book Chapters

Sirin, O., Ebead, U. A. A., Eid, H. T. A. I., Gunduz, M., Hussein, M. F. M. (2020). Proceedings of the International Conference on Civil Infrastructure and Construction (CIC 2020). Qatar University Press.

Patents

Nil

Technical Reports

Editorials and Essays

Nil

Appendix A2- Seminars – Public Lectures – Short Courses

Seminars and Public Lectures Delivered by Departmental Faculty Members

Mohammed F.M. Hussein, Invited speaker, Energy harvesting from railway slab-tracks, Dynamics and Vibration Research Group, Cambridge University Engineering Department, Invited online talk, 20 November 2020.

Training Delivered by Departmental Faculty Members

Mohammed Elshafie, CENG Training for engineers of the Public Works Authority (Ashghal) on Asset Management.

Seminars and Public Lectures Attended by Departmental Faculty Members

Dr. Riyadh I. Al-Raoush

- Online Training Programs, One week training: Guide to Online Teaching and Learning (GOTL) QU, Qatar, May 2020.
- Conference Participation INTERNATIONAL CONFERENCE ON CIVIL INFRASTRUCTURE AND CONSTRUCTION (CIC 2020) Department of Civil and Architectural Engineering Qatar February 2, 2020 - February 5, 2020

Dr. Alaa AlHawari

- Seminar Seminar- Produced water – Technical and Non-Technical Management Options, Gas Processing Center (GPC)-College of Engineering-Qatar University Qatar, November 5, 2020
- Seminar Project-based Learning (PBL) in Engineering Education Seminar TIEE Unit -College of Engineering at Qatar University Qatar September 30, 2020

- Seminar Destabilizations and Separation of Stable Colloidal Dispersions Using Natural Deep Eutectic Solvent Gas Processing Center (GPC)-College of Engineering-Qatar University Qatar April 2, 2020
- Workshop Workshop on Online Teaching Using Blackboard Collaborate Qatar University-College of Engineering Qatar March 10, 2020
- Workshop Workshop: Digital Measures for Promotion and Renewals Qatar University Qatar February 29, 2020
- Conference Participation International Conference on Civil Infrastructure and Construction (CIC 2020) Qatar University Qatar February 2, 2020 - February 5, 2020
- Conference Participation International Conference on Civil Infrastructure and Construction (CIC2020) Qatar University Qatar February 2, 2020 - February 5, 2020
- Workshop الملتقى الحادي عشر للتميز في التعليم والتعلم: التدريب على التعامل مع موقع (ithenticate) لكشف الانتحال ونسب الاقتباس Center for Excellence in Teaching and Learning - Qatar University Qatar January 7, 2020

Dr. Wael I. Alnahhal

- Seminar Developing "Interactive Lectures" to Better Engage Your Students. The Center for Excellence in Teaching and Learning (CETL) at Qatar University Qatar November 5, 2020
- Symposium CETL 1st Symposium: Together we Learn, Together we Teach Center for Excellence in Teaching and Learning (CETL) at Qatar University Qatar June 4, 2020
- Online Training Programs Online Teaching and Learning Program Center for Excellence in Teaching and Learning at Qatar University Qatar May 10, 2020 - May 14, 2020
- Seminar Web seminar using Webex Qatar University Qatar March 14, 2020
- Conference Participation INTERNATIONAL CONFERENCE ON CIVIL INFRASTRUCTURE AND CONSTRUCTION (CIC 2020) Department of Civil and Architectural Engineering Qatar February 2, 2020 - February 5, 2020
- Seminar PBL Seminar: Sharing Experiences and Future Outlook for The College of Engineering Qatar January 27, 2020
- Workshop Bridging the Gap College of Engineering- Qatar University, Qatar Diar Qatar January 22, 2020

Dr. Arslan Ayari

- Seminar Redesigning Higher Education -Shaping the Future College of Engineering Qatar December 14, 2020 – Present
- Workshop Project-based Learning (PBL) in Engineering Education Seminar College of Engineering Qatar September 30, 2020

Dr. Usama Ebead

- Training WHMIS-Training Western university Canada August 2020
- Workshop AODA - Accessibility in Service Western university Canada August 2020
- Workshop AODA-Accessibility-in-Teaching Western university Canada August 2020
- Workshop Supervisor-Health-Safety-Awareness Western university Canada August 2020
- Workshop Western-Safe-Campus-Community Western university Canada August 2020
- Workshop Worker-Health-and-Safety-Awareness Western university Canada August 2020

- Workshop Workshop on Online Teaching Using Blackboard Collaborate Qatar
University Qatar March 10, 2020

Dr. Hisham Eid

- Workshop Learning Outcomes Assessment Process Office of Academic Quality
Assurance at QU Qatar 2020
- Conference Participation INTERNATIONAL CONFERENCE ON CIVIL INFRASTRUCTURE
AND CONSTRUCTION (CIC 2020) Department of Civil and Architectural Engineering
Qatar February 2, 2020 - February 5, 2020

Dr. Mohammed Elshafie

- Seminar Project-based Learning (PBL) in Engineering Education Qatar University Qatar
September 30, 2020
- Training TADESS System Workflow Guide Qatar University Qatar August 30, 2020
- Workshop Higher Education Post COVID 19-New Era of Resilience, Lessons and
Opportunities Qatar University Qatar May 18, 2020
- Workshop Modeling, AI, and Innovative Technologies to Flatten the Curve Qatar
University Qatar May 14, 2020
- Conference Participation INTERNATIONAL CONFERENCE ON CIVIL INFRASTRUCTURE
AND CONSTRUCTION (CIC 2020) Department of Civil and Architectural Engineering
Qatar February 2, 2020 - February 5, 2020

Dr. Murat Gunduz

- Seminar Blended Learning: Future Visions and Insights- National Centre for
Educational Development and QU College of Education QU Qatar September
2020 – Present
- Seminar COVID-19: The medical response and the impact on Infrastructure projects, Dr.
Surya Sethumadavan (the Public Works Authority) QU Qatar September 2020 –
Present
- Seminar What Students Wish Their Professors Knew- Online Panel - The Chronicle
Chronicle United States September 2020 – Present
- Seminar Webinar, LCI-Qatar- Logistics and Supply Chain Management LCI Qatar
June 2020 – Present
- Seminar Bridging the Gap , Lean Construction Institute LCI Qatar January 2020 –
Present
- Seminar PBL Seminar: Sharing Experiences and Future Outlook for The College QU
Qatar January 2020 – Present
- Conference Participation INTERNATIONAL CONFERENCE ON CIVIL INFRASTRUCTURE
AND CONSTRUCTION (CIC 2020) Department of Civil and Architectural Engineering
Qatar February 2, 2020 - February 5, 2020

Dr. Mohammed Hussein

- Workshop CETL 1st Symposium: Together we Learn, Together we Teach Center for Excellence in Teaching and Learning, QU Qatar June 4, 2020
- Symposium Higher Education Post COVID-19: A New Era of Resilience, Lessons and Opportunities College of Engineering, Qatar University Qatar May 17, 2020
- Workshop Workshop on Online Teaching Using Blackboard Collaborate College of Engineering, QU Qatar March 10, 2020
- Symposium ICE Qatar Learned Event - Doha Metro Overview – Raimund Hanauer ICE Qatar Qatar February 17, 2020
- Seminar PBL Seminar: Sharing Experiences and Future Outlook for the College of Engineering, Qatar University Qatar January 27, 2020
- Conference Participation INTERNATIONAL CONFERENCE ON CIVIL INFRASTRUCTURE AND CONSTRUCTION (CIC 2020) Department of Civil and Architectural Engineering Qatar February 2, 2020 - February 5, 2020

Dr. Okan Sirin

- Conference Participation INTERNATIONAL CONFERENCE ON CIVIL INFRASTRUCTURE AND CONSTRUCTION (CIC 2020) Department of Civil and Architectural Engineering Qatar February 2, 2020 - February 5, 2020
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Appendix-A3-Faculty-Activities

Professional Service:

Murat Gunduz, Associate Editor for ASCE Journal of Management in Engineering, 2020

Teaching and learning

- Project Based Learning, CVEN 422, Design of Reinforced Concrete Structure, Dr. Usama Ebead, Spring 2020.
- Project Based Learning, CVEN482, Selected Topics in Construction Management, Dr. Khalid Naji, Fall 2020.
- Project Based Learning, CVEN 350, Environmental Engineering, Dr. Mohamed Arslan Ayari and Dr. Alaa AlHawari, Fall 2020.
- Game Based Learning, CVEN214, Strength of Materials, Dr. Mohammed Elshafie, Fall 2020.

Awards and Achievements

- Dr. Murat Gunduz was Chair of best paper selection committee, ASCE Journal of Management in Engineering, 18-02-2020
- Dr. Okan Sirin was acknowledged in the College of Engineering End of Year Event 2019-2020 for his service efforts in the department. Dr. Okan has recently joined the Editorial Board of Advances in Civil Engineering Journal.
- Dr. Usama Ebead was acknowledged in the College of Engineering End of Year Event 2019-2020 for his research effort in the department.
- Dr. Nasser Alnuaimi has been promoted to Associate professor in Civil Engineering.
- Prof. Riyadh Al Raoush has been promoted to Full professor in Civil Engineering.
- Prof. Alaa Al-Hawari has been promoted to Full professor in Civil Engineering.
- 3 academics from the CAE Department were listed among the 2% highly cited academics in the world for 2019 citations impact (Prof. Al-Raoush, Prof. Ebead, and Dr. Hussein). Prof. Ebead was listed among the top 2% of highly cited academics in the world for career-long citation.

Workshop, Training, and Visits Attended

Dr. Wael Alnahhal:

Practical training coordinator for the Department of Civil Engineering at Qatar University for the winter semester 2020-2021

Seminars & Trainings:

1- Engineering the Future

Dr. Guna Gunalan, the president of American Society of Civil Engineers (ASCE), delivered a presentation on “Engineering the Future” on February 6 2020 at the office of research and graduate studies, College of Engineering, Qatar University. Dr. Gunalan is a Senior Vice President of Transportation Alternative Delivery at AECOM, Salt Lake City. The role, responsibility and current state of profession of Civil Engineers and the support given by ASCE to meet the challenges of the future were discussed during the session.



Figure 23- Engineering the Future presentation

2- The maturity of the selection process of the advanced bridges in Qatar, and how it is reduced the challenges during the design and construction.

Eng. Tamer Hassan A. Tahoun, Project Manager, Parsons International Limited. Delivered a presentation on “The maturity of the selection process of the advanced bridges in Qatar and how it reduced the challenges during the design and construction”. On November 4 2020 online. Eng. Tamer works for Parsons International Limited as a Projects Design Manager with 21 years of successful experience in structural engineering and project management. In addition, of being a professional engineer, PE, registered in the State of Colorado, US, Eng. Tamer has a Master of Science in Project Management from University of Roehampton, UK and certified as a Project Management Professional (PMP) from Project Management Institute. Eng. Tamer is also a member of the Chartered Management Institute, UK. Eng. Tamer Hassan registered in Qatar Engineering Committee, Class A.

3- COVID-19: The medical response and the impact on Infrastructure projects

Dr. Surya is the Health Advisor of Ashghal Projects Affairs Directorate, he delivered a presentation on” COVID-19: The medical response and the impact on Infrastructure projects” on16th of September 2020 Online. Dr. Surya is a member of Qatar’s National Health Strategy Group under the auspices of The Prime Minister of Qatar and works closely with Ministry of Public Health and

Ministry of Labor and his focus is Workplace wellness program. He is the driving force behind the health and wellness initiatives in Ashghal's 119 infrastructure projects reaching nearly 82 thousand workers. He is actively involved in workers' health and wellness and in 2020, London based Brit Safe Awards from the prestigious British Safety Council, conferred upon Ashghal the International Wellbeing Initiative Award in honor of Ashghal's Health and wellness campaign.

4- The college of engineering at Qatar University & Qatar society of engineers invite you to attend the online industrial workshop.

Dr. Osman Elhussien is a Senior Quality Engineer and Technical Expert in Ashghal Center for Research and Development (ACRD) - Public Works Authority, Quality and Safety Department, he delivered a presentation on "the college of engineering at Qatar university & Qatar society of engineers invite you to attend the online industrial workshop" on 14th of December 2020 Online. Dr. Osman is holding a PhD in civil engineering from university of technology Malaysia (UTM). He previously worked as a Technical Manager in Qatar Industrial Labs - Qatar, and as a Technical Manager in Al-Kaabi Soil & Materials Testing Co., Saudi Arabia and as a Research Assistant in King Fahd University of Petroleum and Minerals (KFUPM). He's member of many prestigious local and international committees in the materials field.



Figure 24 - Dr. Guna Gunalan

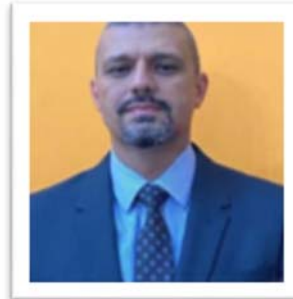


Figure 25 - Eng. Tamer Hassan



Figure 26 - Dr. Osman Elhussien



Figure27 - Dr. Surya

Events Organized:

INTERNATIONAL CONFERENCE ON CIVIL INFRASTRUCTURE AND CONSTRUCTION (CIC 2020)



The Department of Civil and Architectural Engineering organized the International Conference on Civil Infrastructure and Construction (CIC 2020) with strong support from the College of Engineering in Grant Hyatt Hotel from the 2nd to the 5th of February 2020. The conference was held under the umbrella of the World Congress for Engineering & Technology (WETC-2020) that the College of Engineering organized as part of the celebration of its 40th anniversary. The CIC 2020 conference was organized in collaboration with the Public Works Authority (Ashghal) and the Ministry of Municipality & Environment (MME).



Figure 28 - CIC 2020

The conference was the first and the largest of its kind in Qatar and the Middle East. The conference received large number of contributions from all over the world, with 130 accepted papers from 16 different countries. The conference provided a platform to discuss the next-generation infrastructure and its construction among key players such as researchers, industry professionals and leaders, local government, clients, construction contractors and policymakers of the construction industry. The conference program involved four different themes: Construction Management and Process, Materials and Transportation Engineering, Geotechnical, Environmental, and Geo-environmental Engineering, and Sustainability, Renovation, & Monitoring of Civil infrastructure.

The Civil and Architectural Engineering Department in partnership with the College of Engineering received strong financial support for the conference. This support came from Ashghal, Qatar Rail, Qatar Diar, CCC, Alsarh, Supreme Committee for Delivery and Legacy, QNRF, National Tourism Council, Alwaha, JH Construction, Altawfeeq, WSP, Qatar Building Company and Salfo. The conference attracted top keynote speakers from the most prestigious engineering institutions including the President of the American Society of Civil Engineers (ASCE), the Chair of 2019 Board of Directors of the Project Management Institute (PMI), the President-elect of the Institution of Civil Engineers (ICE) and the President of the International Association for Bridge and Structural Engineering (IABSE). The conference also attracted top executive speakers from key stakeholders in Qatar including Ashghal, MME, Qatari Diar, Supreme Committee, Qatar Green Building Council, and Qatar Rail.



Figure 29 - CIC 2020

The conference received strong support from its professional partnership, consisting of the **American Society of Civil Engineers (ASCE)**, **Institution of Civil Engineers (ICE)**, **Engineers Australia (EA)**, **Qatar Lean Construction Institute (LCI)**, **Project Management Institute (PMI)**, **American Concrete Institute (ACI)**, **Green Building Council**, **Qatar Society of Engineers**, **Federation of Arab Engineers**, and the **International Association of Bridge and Structural Engineering (IABSE)**. The conference was a successful event for the Department, the College and the University. One of the many significant outcomes the conference provided is the strong exposure of the undergraduate and postgraduate students to presentations by experts from all over the world. The Department also received strong support from the students who volunteered to make the conference a very successful event.





Figure 30 – CIC Conference 2020

- HONORING STUDENTS VOLUNTEERED IN THE CIC 2020**

The Department of Civil and Architectural Engineering honored students who volunteered in the CIC 2020 on February 6, 2020. The Dean of the College of Engineering Dr. Khaled Naji and the department head Dr. Mohammed Hussein along with the Conference Chairman Dr. Okan Sirin presented mementos to students who supported the CIC conference, which was held on 2nd – 5th of February 2020 at Grant Hyatt Hotel, Doha.



Figure 31 - Honoring students who volunteered in CIC 2020

Other event co-organization:

Prof. Riyadh Al-Raoush, co-organized the event BEATS: Beamline for Tomography at SESAME (EU H2020) User Community Building Event: Qatar, Tuesday 17th – Wednesday 18th, November 2020.

Media Appearance:

Mohammed F.M. Hussein, Guest in TV program “Fee Al-Dhaha” to talk about university precautions against COVID-19, Qatar TV, 22 Sep 2020.



Figure 30 - Dr. Hussein in “Fee Al-Dhaha” Program on Qatar National channel

The Department made significant appearance in the newspapers during the CIC 2020 conference. The Department also shared progress in research.



Figure 31 - Dr. Al-Hawari in Al-Raya, 28 Sep 2020.



Figure 32 – Interview about safety precautions against COVID-19 in Al-Raya, 14 Sep 2020.

Appendix-A4-Students Activities

Competitions & Awards:

Senior Design Contest Spring 2020

The Senior Design –II Spring 2019 Contest was held on the 29th of April 2020 ONLINE. **Nine groups** participated in this competition. The students presented their project to the Jury members as well as to internal and external examiners. Here are the details of the winners:

Table 13-SDP –II Contest Winner Details:

Position	Students	Title of Project	Supervisors
1st	Ahmed Jolak	Design of a multipurpose sports hall at Qatar University.	Wael Al Nahhal M.Elshafie A. Al-Hawari
	Wardan Khatib		
	Ahmed Eltahan		
	Mohamed Khalil		
2nd	Mohammed Fayed	Al -Hout Tower	M.S.Al-Ansari R. Al-Raoush M.Gunduz
	M.Fares Hout		
	Anas Hamed		
	Nasser Al-Kubaisi		
3rd	Moaaz Ramadan	M.A.R.K Hotel and Security building	M.S.Al-Ansari R. Al-Raoush M.Gunduz
	Ahmad Musleh		
	Rashid Al Suwaidi		
	Khalid Abdelaziz		

- The student Mustafa Almallah has won the best poster award for graduate students for the Information and Communication Technologies category. The event name was Qatar University Annual Research Forum and Exhibition 2020, which was held on 28th of October 2020 at Ibn Khaldon Hall.



Figure 33- Mustafa Almallah Receiving his certificate

- The Civil Engineering PhD student, Tadesse Wakjira won Qatar University Graduate Research Award – Sciences. The honoring ceremony was held on Wednesday, 28th October 2020 at Ibn Khaldoun Hall in Qatar University.



Figure 34 - Tadesse Wakjira Receiving his certificate

Activities:

Subject Ranking:

The Department of Civil and Architectural Engineering is moving up in the Shanghai Ranking. The department is ranked among the top universities in the world compared to last year where the department was ranked among the 201-300 universities in the world.




New student chapter:

The Department of Civil and Architectural Engineering has established a new student chapter. The new chapter is an ICE chapter which received approval by the Institution of Civil Engineers in June 2020.

Student Success stories:

- Our graduate students have been very successful in obtaining the Graduate Sponsorship Research Award (GSRA) by Qatar Foundation in the most recent 6th and 7th cycles.

Table 15 – graduate with sponsorship research award (GSRA) details:

No.	GSRA Number	Student Name	Program
1	GSRA6-1-0301-19005	Abathar Al-Hamrani	Ph.D. student in Civil Engineering
2	GSRA6-1-0509-19021	Mhd Ammar Nabil Hafiz	Ph.D. student in Civil Engineering
3	GSRA6-1-0509-19022	Abdulrahman Abushanab	Ph.D. student in Civil Engineering
 <p>الصندوق الوطني لدراسة البحث العلمي Qatar National Research Fund عضو في مؤسسة قطر Member of Qatar Foundation</p>			
4	GSRA7-1-0217-20002	Jamal Hannun	Ph.D. student in Civil Engineering
5	GSRA7-1-0419-20019	Alaa Taha	Ph.D. student in Civil Engineering
6	GSRA7-1-0429-20028	Radwan Alfahel	Ph.D. student in Civil Engineering
7	GSRA7-1-0511-20048	Firas Alkadour	Ph.D. student in Civil Engineering