

# 2018 Annual report for the Department of Civil & Architectural Engineering, College of Engineering, Qatar University

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## *Department Executive Summary*

This document reports about progress and activities of the Department of Civil & Architectural Engineering for the calendar year 2018. During the year, the Department continued its effort to deliver the undergraduate and postgraduate courses to the highest standards. The Department also continued its effort to improve the communications with the students and collecting feedback, besides supporting the students at risk through a coaching system. The Department worked on a number of proposals regarding curricula including a proposal to deliver a project management minor, and an updated proposal for postgraduate certificate on transportation engineering. To further improve quality and procedures of laboratories, the Department developed an initial plan for certification of lab testing with advice from Ashghal. During the calendar year 2018, the Department organized a number of activities for its own students including the egg protection competition in collaboration with Ashghal and the American Concrete Institute, and the Dome Building competition in collaboration with Engineers Australia and the Green Building Council. The Department, through the effort of its faculty, continued its research effort, including application for new research grants, management of existing research grants, and publications of high quality journal and conference papers, which resulted in 9 new research grants, 60 journal publications, and 37 conference publications. The department continued its strong ties and collaboration with the key industrial partners such as Qatar Rail through a joint project, and Ashghal through joint organization of students' competition, organization of a workshop for the industry, and consultation regarding development of the Department's labs. The Department takes leadership in key discussion related to the industry and community including the effort in responding to political and market changes. This is exemplified by the Department organization of workshop on the impact of blockade on the construction industry in Qatar. The Department also hosted other events such as the one by the Supreme Committee for delivery and legacy under the College of Engineering umbrella and invited a number of speakers to speak for the undergraduate students as well as on industrial and research topics for the academics. On the outreach activities, the department visited 13 schools and delivered presentations to promote Engineering overall and Civil Engineering in particular for the high school students. It also took active parts in the Engineering week and in supporting the college on school visits to the university. The main highlights related to faculty in the Department is the promotion of one faculty to full professor, the large success in publications of high quality journal and conference papers and the award received by one of the academics for best paper. The report shows good level of details along with the dates of the activities and achievements during the calendar year 2018.

## Department Profile

Table 1: Executive Summary of Civil & Architectural Engineering Department

Description	
<b>Academic and Support Staff</b>	
	<b>2018</b>
Faculty	16
Teaching Assistant	7
Graduate Assistant	3
Technical and Administrative Staff	3
On-Study Leave	3
Total	32
<b>Undergraduate Program</b>	
	<b>2018</b>
Enrollment (Fall 2018)	285
Registered (Fall 2018)	260
Graduates (Spring 2018)	37
Graduates (Summer)	21
Graduates (Fall2017)	25
<b>Graduate Program</b>	
	<b>2018</b>
Enrollment (Fall 2018)	41
Registered (Fall 2018)	34
Graduates (Spring 2018)	6
<b>Research Projects (Awarded in 2018)</b>	
	<b>2018</b>
GSRA	1
NPRP	1
PDRA	0
UREP	5
Qatar University Grants	0
University Internal Students' Grants	2
Industrial Grants	0
GCC Co-Fund Program	0
<b>Research Projects (Active in 2018 but awarded before 2019)</b>	
GSRA	1
NPRP	10
PDRA	1
UREP	4
Qatar University Grants	0
University Internal Students' Grants	0
External Grants	0
GCC Co-Fund Program	1
<b>Publications (Appendix A1)</b>	
	<b>2018</b>
Refereed Journal Papers	60

Conference Papers	37
Technical Reports	2
Book Chapters	0
Books	0
Book Reviews	0
Editorials and Essays	1
<b>Seminars – Public Lectures – Short Courses (Appendix A2)</b>	<b>2018</b>
Seminars and Public Lectures Delivered by Departmental Faculty Members Inside Qatar University	3
Seminars and Public Lectures Delivered by Departmental Faculty Members Outside Qatar University	8
Short Course Delivered by Departmental Faculty Members	0
Seminars and Public Lectures Attended by Departmental Faculty Members	10
Seminars and Public Lectures Delivered by Visiting Academics and Professionals	5
Invited Public Lectures/ Keynote Speakers	1
<b>Faculty Activities (Appendix A3)</b>	<b>2018</b>
Consultancy	0
Community Service	3
Awards and Achievements	7
Conferences Attended	13
Workshops, Training and Visits Attended	4
Workshops, Training and Visits Delivered	58
Events Organized	2
Other Activities	1
<b>Students' Activities (Appendix A4)</b>	<b>2018</b>
Competitions	3
Awards	3
Seminars & Trainings	8
Field Trips, Social and Extra-Curricular Events	9

## Academic Staff

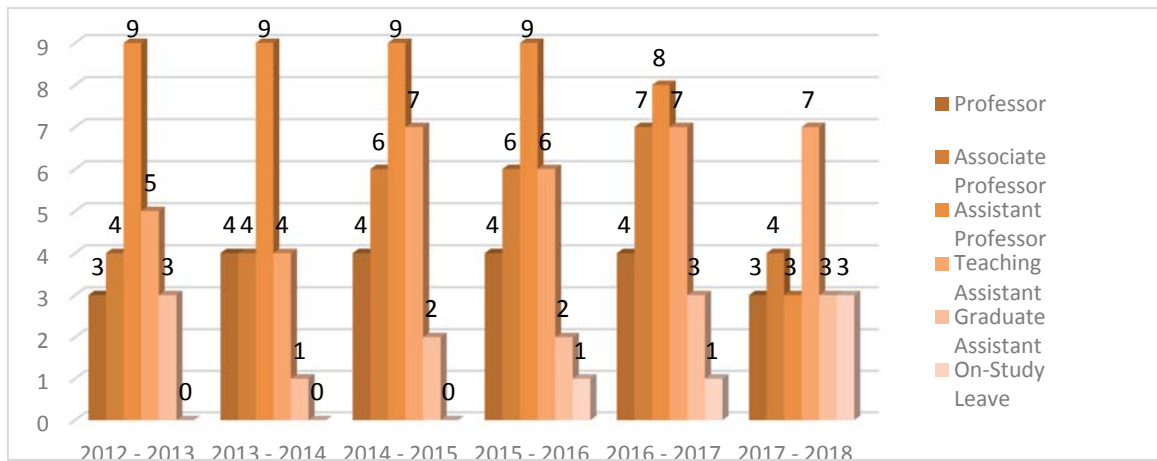


Figure 1: Academic Staff in CAE Department, 2012-2018.

## Technical and Administrative Staff



Figure 2: Non-Academic Staff in CAE Department, 2012-2018.

## Department Standing Committees

The department has number of committees and coordination roles for 2018 as listed below:

- **Faculty**

- Departmental Board Committee: Dr. Mohammed Hussein (Chair).

- Undergraduate program coordinator: Prof. Usama Ebead.
- Postgraduate program coordinator: Prof. Hisham Eid.
- Curriculum and quality assurance Committee:
  - Spring 2018: Prof. Usama Ebead (Chair), Prof. Murat Gunduz, Prof. Ramzi Taha (member), Dr. Mohsin Siddique (member), Dr. Riyadh Al-Raoush (member).
  - Fall 2018: Prof. Usama Ebead (Chair), Prof. Murat Gunduz (member), Prof. Khaldoon Bani Hani, Dr. Alaa Al-Hawari (member).
- Research and postgraduate committee
  - Spring 2018: Prof. Hisham Eid (Chair), Dr. Alaa Al-Hawari (member), Dr. Khaled Shaaban (member). Fall 2018: Prof. Hisham Eid (Chair), Dr. Khaled Shaaban (member), Dr. Okan Sirin (member).
- Promotion: - Ad-Hoc Committee.
- Recruitment: - Ad-Hoc Committee.
- Scheduling coordinator: Dr. Wael Alnahhal.
- Newsletter coordinator: Dr. Alaa Al-Hawari.
- Lab development coordinator: Fall 2018: Dr. Khalid Naji.
- Coordinator of senior design project:
  - Spring 2018: Dr. Mohammed Elshafie. Fall 2018: Dr. Riyadh Al-Raoush.
- Minutes recorder for Board meetings: Dr. Mohammed Elshafie.
- CRU course coordinator: Dr. Khaled Shaaban.
- Industry liaison: Dr. Mohammed Elshafie.
- University Senate member: Dr. Wael Alnahhal.

- **Teaching Assistants**

- Administrator for Senior design projects: Eng. Muhammad Shekaib
- Administrator for Software affairs and Environmental lab: Eng. Sikder M Selimuzzaman
- Administrator for outreach, event supports and shared folder: Eng. Nasser Al-Nohmi
- Administrator for Curriculum committee, website and P-card: Eng. Abdulrahman Abu Hijleh
- Assistant coordinator for Scheduling: Eng. Khaled Rabie.
- Assistant staff for tendering and labs safety and requirements: Eng. Abdul Azeez Kilayil.
- Assistant staff for lab development: Eng. Siju Joseph.

## Faculty Profile

Table 2: CAE Faculty Profile 2018


Photo	Faculty Name	Rank/Position	Area of Specialization
<b>Faculty Members with Administrative Roles</b>			
	Mohammed Hussein	Head of the Department of Civil and Architectural Engineering	Railway Engineering, Ground-borne Vibration, Structural Dynamics, Structural-Health Monitoring, Soil-structure 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
	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
	Usama Ebead	Professor & Undergraduate Program Coordinator	Structural Engineering, Rehabilitation of reinforced concrete structures, Finite element modeling of reinforced concrete structures, Durability of FRP reinforcement in concrete
	Hisham Eid	Professor & Postgraduate Program Coordinator	Soil and rock mechanics, geo environmental engineering, soil structure interaction
	Mohammed Elshafie	Associate Professor & QD-SBG Chair	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.
<b>Full Professors</b>			
	Mohammed Al-Ansari	Professor	Reinforced concrete design; solid mechanics, Earthquake Engineering, Numerical Analysis <b><u>(On-Study Leave)</u></b>
	Khaldoon Bani-Hani	Professor	Structural Engineering
	Murat Gunduz	Professor	Construction engineering and management, construction productivity measurement and improvement, construction health and safety, data collection and analysis
<b>Associate Professors</b>			
	Okan Sirin	Associate Professor	Pavement materials and design, Superpave technology, Accelerated pavement testing, Traffic engineering
	Alaa Al Hawari	Associate Professor	Water and waste water treatment (membrane rejection and fouling, bio sorption and selective adsorption), solid waste management and sustainability
	Khaled Shaaban	Associate Professor	Traffic Operations, Intelligent Transportation Systems, Traffic Simulation, Traffic Safety, Work Zones

	Riyadh Al-Raoush	Associate Professor	Fate and transport of contaminants in subsurface systems, Environmental fluid dynamics, Multiphase and multistate modeling of flow through porous media
<b>Assistant Professors</b>			
	Khalid Naji	Assistant Professor	Computer applications in construction engineering with emphasis on project management, cad and graphical simulation techniques, virtual environments
	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.
	Wael Alhajyaseen	Assistant Professor (QTTSC Center)	Traffic safety (Human factors, crash data and causality, driving simulation), Urban traffic control & operation, Road user behavior analysis (including naturalistic driving), Non-motorized traffic especially pedestrians and bicycles (facilities design, control and operation), Intelligent transportation systems (ITS), Travel behavior and forecasting (Macroscopic level), Public transportation, Road geometric design.
<b>Teaching Assistants</b>			
	Sikder M Selimuzzaman	Teaching Assistant	Environmental Engineering (Wastewater treatment)
	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	Teaching Assistant	Analysis and Design of Structures <b><u>(On-Study Leave)</u></b>
	Eng. Salem Alnaimi	Teaching Assistant	Transportation Engineering <b><u>(On-Study Leave)</u></b>
<b>Lab Technicians</b>			
	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
<b>Administrative Assistants</b>			
	Aisha Al- Kuwaiti	Administrative Coordinator	

### *Department/Program FTE*

#### **Teaching load of 2018-2019**

	Fall 2018	Spring 2019	Total	Required	Difference
Dr. M. Al-Ansari	0	0	0	0	0
Dr. Al-Hawari	12.2702	10.506	22.7762	18	4.7762
Dr. Alhajyassen	4.80016	4	8.80016	6	2.80016
Dr. Al-Nahhal	13.401	9.8016	23.2026	18	5.2026
Dr. Al-Nuaimi	0.5	2	2.5	3	-0.5
Dr. Al-Raoush	9.34379	12.9539	22.29769	18	4.29769
Dr. Khaldoon	10.1672	4.48418	14.65138	15	-0.34862
Dr. Ebead	9.25035	7.5	16.75035	15	1.75035
Dr. Eid	7.1681	7.80345	14.97155	15	-0.02845
Dr. Elshafie	11.62845	5.78785	17.4163	15	2.4163
Dr. Gunduz	9.88405	10.66781	20.55186	18	2.55186
Dr. Hussein	4.85094	4.385	9.23594	6	3.23594
Dr. Naji	7.62615	8.60232	16.22847	15	1.22847
Dr. Shaaban	10.63536	9.0041	19.63946	18	1.63946
Dr. Sirin	10.07665	9.17005	19.2467	18	1.2467

### Teaching load of 2017-2018

	Fall 2017	Spring 2018	Total load	Required	Difference
Dr. M. Al-Ansari	7.667	8.875575	16.542575	18	-1.457425
Dr. Al-Hawari	7.91695	13.3339	21.25085	18	3.25085
Dr. Alhajyassen	4.0002	3.40008	7.40028	6	1.40028
Dr. Al-Nahhal	11.41675	9.8336	21.25035	18	3.25035
Dr. Alnuaimi	0.5	3.5	4	3	1
Dr. Al-Raoush	7.8336	11.76702	19.60062	18	1.60062
Dr. Ebead	8.20024	6.90038	15.10062	12	3.10062
Dr. Eid	10.13356	4.18357	14.31713	12	2.31713
Dr. Elshafie	7.625325	8.41715	16.042475	15	1.042475
Dr. Gunduz	8.7501	12.541925	21.292025	18	3.292025
Dr. Hussein	5.758435	2.23363	7.992065	6	1.992065
Dr. Naji	3.40008	6.96686	10.36694	12	-1.63306
Dr. Shaaban	10.908415	9.10022	20.008635	18	2.008635
Dr. Siddiqui	6.725045	9.45009	16.175135	18	-1.824865
Dr. Sirin	11.7504	8.417	20.1674	18	2.1674
Dr. Taha	10.0002	6.6668	16.667	18	-1.333

## *Undergraduate Majors and Minors*

### Bachelor of Science in Civil Engineering

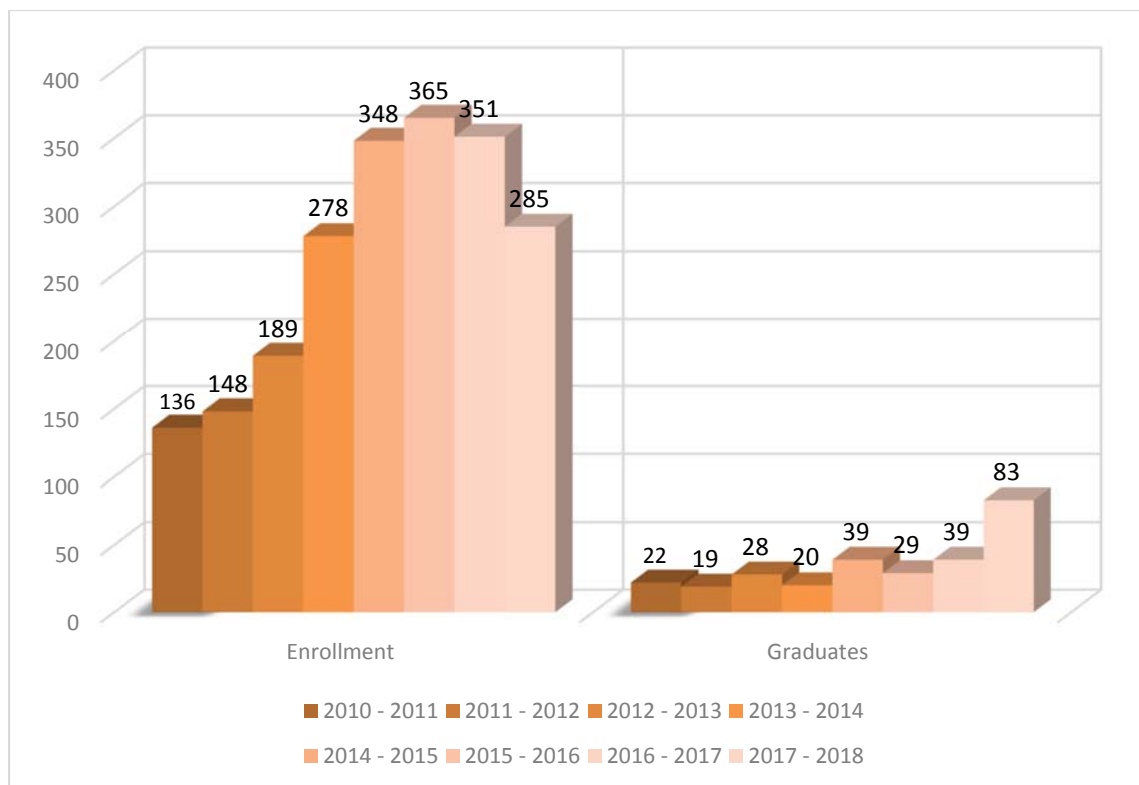
The Department of Civil and Architectural Engineering at Qatar University awards the Bachelor of Science (B.Sc.) in Civil Engineering. Civil Engineering is the broadest and oldest of the engineering disciplines, spanning across many technical specialties which are not independent, but rather interact 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 one 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.



**Figure 3: Number of enrolled and graduating students in CAE department, 2010–2018**

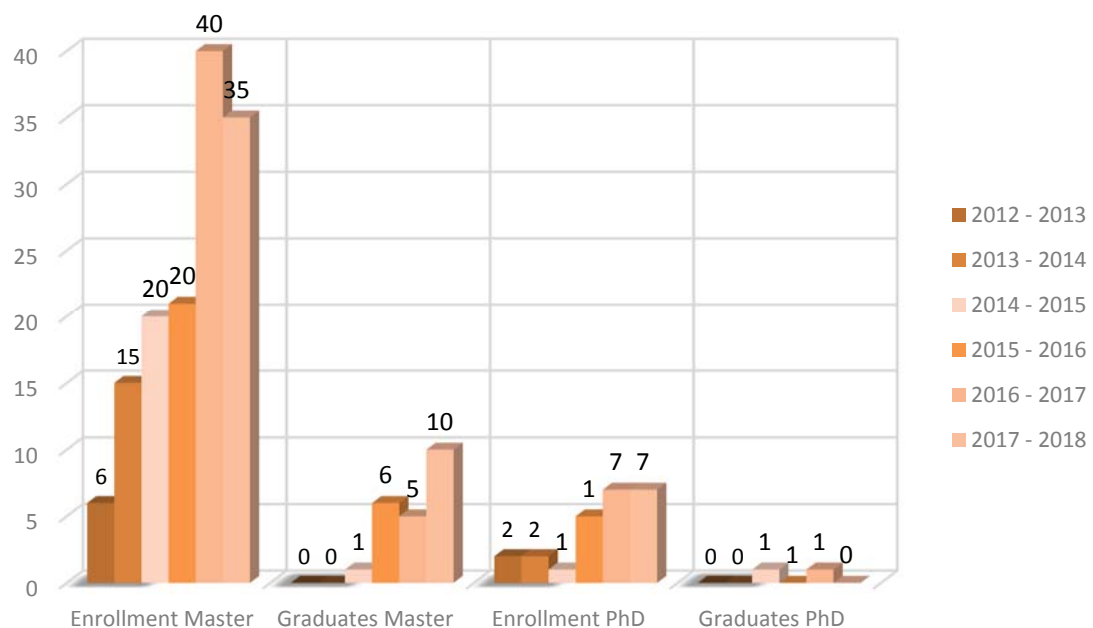
### *Post Graduate Programs*

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 students in cae department, 2012–2018**

## *Internal, External Grants and Research*

The following table illustrates the awarded research projects in the Department of CAE 2018

**Table 3: Awarded Research Projects and Grants in the Department of CAE in 2018**

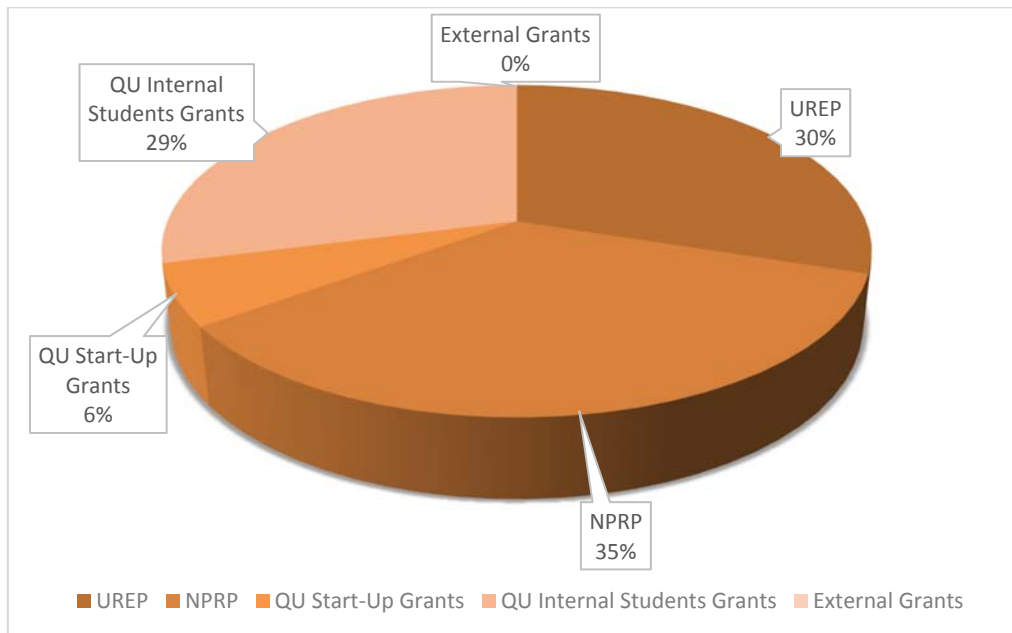
<b>Project Number</b>	<b>Project Title</b>	<b>Co-LPI/LPI</b>
<b>NPRP11S-1211-170085</b>	Self-Healing Bio-Concrete for sustainable and resilient Civil Infrastructure	Dr. Nasser Alnuaimi
<b>UREP23-113-2-040</b>	Utilization of recycled materials and industrial by-products as alternative construction materials at Qatar	Dr. Wael Alnahhal
<b>UREP22-006-2-002</b>	Construction of Qatar's Rail Using Waste Steel Slag as a Ballast Material	Dr. Wael Alnahhal
<b>UREP22-007-2-003</b>	High quality treated wastewater for irrigation purposes using an optimized aeration process in membrane bioreactors	Dr. Alaa AlHawari
<b>UREP22-062-2-022</b>	Driver Distraction among Young Drivers Qatar National Research Fund	Dr. Khaled Shaaban
<b>GSRA5-2-0525-18072</b>	Treatment of wastewater using a novel electrocoagulation process	Dr. Alaa AlHawari
<b>QUST-1-CENG-2018-28</b>	A comparative traffic noise study between major signalized intersections and roundabouts within Doha	Dr.Khaled Shabaan
<b>QUST-2-CENG-2018-13</b>	Material characterization of seawater-mixed concrete and GFRP reinforcement for their use to design sustainable concrete structures.	Dr. Usama Ebead
<b>UREP22-006-2-002</b>	Construction of Qatar's Rail Using Waste Steel Slag as a Ballast Material	Dr. Riyadh Ibrahim Al-Raoush

**Table 4: Active Research Projects and Grants in the Department of CAE in 2018 but awarded before 2019**

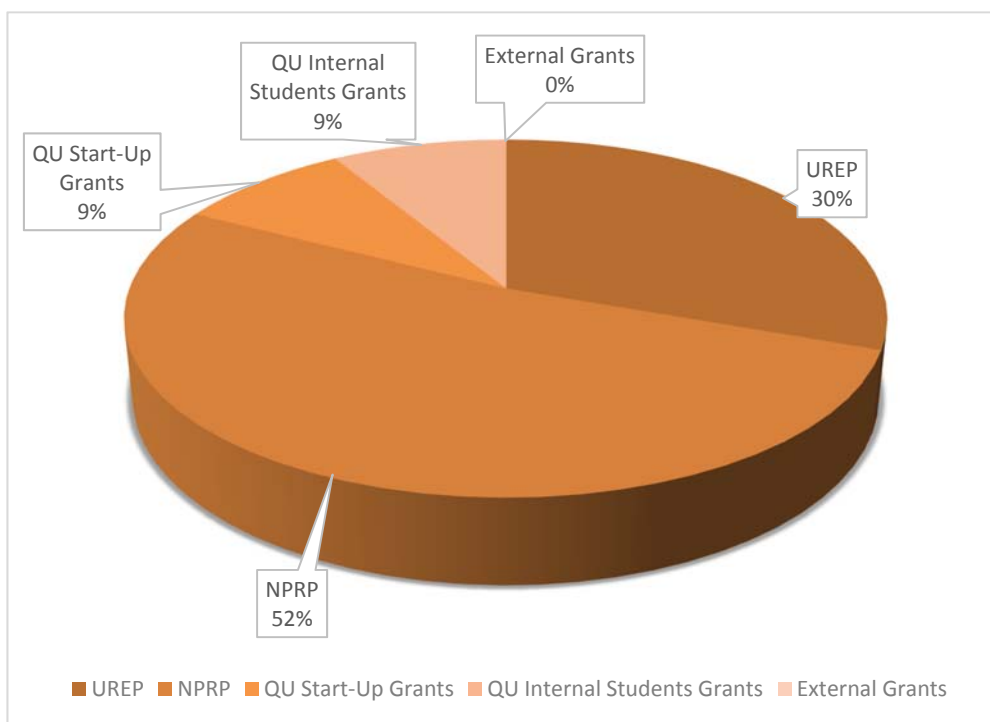
<b>Project Number</b>	<b>Project Title</b>	<b>Co-LPI/LPI</b>
<b>QUEX-CENG-Rail 17/18</b>	Framework for research on railway Engineering Qatar Rail	Dr. Mohammed Farouk Hussein
<b>UREP20-043-2-010</b>	Effective Treatment of Dewatered Construction Water Using Waste Steel Slag	Dr. Alaa AlHawari
<b>UREP20-065-2-013</b>	An integrated solution for the treatment of produced water: electrocoagulation and forward osmosis	Dr. Alaa AlHawari
<b>UREP21-089-2-039</b>	Shear Behavior for Fiber Reinforced Concrete Beams with Basalt FRP Reinforcing Bars	Dr. Wael I Alnahhal
<b>NPRP10-0117-170176</b>	Forward Osmosis Seawater Pretreatment for High Performance Thermal Desalination Plants	Dr. Alaa AlHawari
<b>QUUG-CENG-CAE-17/18-2</b>	Investigating the effects of soil inhomogeneity and tunnel cross-sections on vibration from underground railways University Grant	Dr. Mohammed F Hussein
<b>QUCG-CAM-2018\2019-2</b>	Fiber-reinforced polymer (FRP) Composites for Enhanced Performance and Durability of Concrete Beams under Harsh Environment Exposures. Qatar University internal grant	Mohammed Hassan, Wael Alnahhal
<b>NPRP 7 - 110 - 2 – 056</b>	TOWARD DESIGNING QUIETER PAVEMENTS	Dr. Okan Sirin
<b>NPRP 7 - 089 - 2 – 044</b>	Recovery and Reuse of Municipal and Industrial Wastewater: Development of a novel fouling suppression system in submerged membrane bioreactors using dielectrophoretic forces	Dr. Alaa AlHawari
<b>NPRP 7 - 1720 - 2 – 641</b>	Strengthening of corrosion-damaged concrete flexural members with textile-reinforced mortars. Qatar National Research Fund	Dr. Usama Ali Ali Ebead
<b>NPRP 8-836-2-353</b>	A Unified Approach to	Dr. Mohammed Farouk

	Vibration Serviceability Assessment of Floors Qatar National Research Fund	Mohammed
<b>NPRP 8-1568-2-666</b>	Spectral Band-structure Identification of Amplitude-dependent Viscoelastic Mechanical Metamaterials	Dr. Wael I Alnahhal
<b>NPRP 8-594-2-244</b>	Gas Production from Hydrate-bearing sediments. Qatar National Research Fund	Dr. Riyadh Ibrahim Al-Raoush
<b>NPRP 8-418-2-175</b>	Guidelines for Enhancing the Performance of FRP-strengthened Concrete Beams under Fire and Harsh Environment Exposures. Qatar National Research Fund	Dr. Nasser Abdullah N J Alnuaimi
<b>UREP19-042-2-016</b>	Characterization of soil profile and properties by Spectral Analysis of Surface Waves Qatar National Research Fund	Dr. Mohammed Farouk Hussein
<b>NPRP9-110-2-052</b>	. Sustainable concrete using seawater, recycled aggregates, and non-corrosive reinforcement	Dr. Usama Ali Ali Ebead
<b>NPRP9-093-1-021</b>	Groundwater Pollution by Petroleum-derived Contaminants in Coastal (Semi)-Arid Environment	Dr. Riyadh Ibrahim Al-Raoush
<b>NPRP9-390-1-088</b>	Simulation of microscale biogeochemical processes in porous media using advanced computer vision methodologies	Dr. Riyadh Ibrahim Al-Raoush
<b>QUST-CENG-SPR\2017-29</b>	Effective Treatment of Dewatered Construction Water Using Forward Osmosis	Dr Alaa Al Hawari
<b>GCC-2017-008</b>	Performance of Basalt Fiber Reinforced Polymer "BFRP" Reinforcing Bars under the GCC Harsh Environment GCC Co-Fund Program-1st Cycle	Dr. Wael I Alnahhal
<b>PDRA3-0402-17003</b>	Towards a Flexi-Concrete: CNTs' Reinforcement Alternative	Dr. Moh Salem H Al-Ansari
<b>GSRA4-2-0402-17013.</b>	Engineering a Fertilizing Draw Solution for Irrigation Water Supply	Dr. Alaa AlHawari





**Figure 5: Research Projects Awarded in 2012-2013.**



**Figure 6: Research Projects Awarded in 2013-2014.**

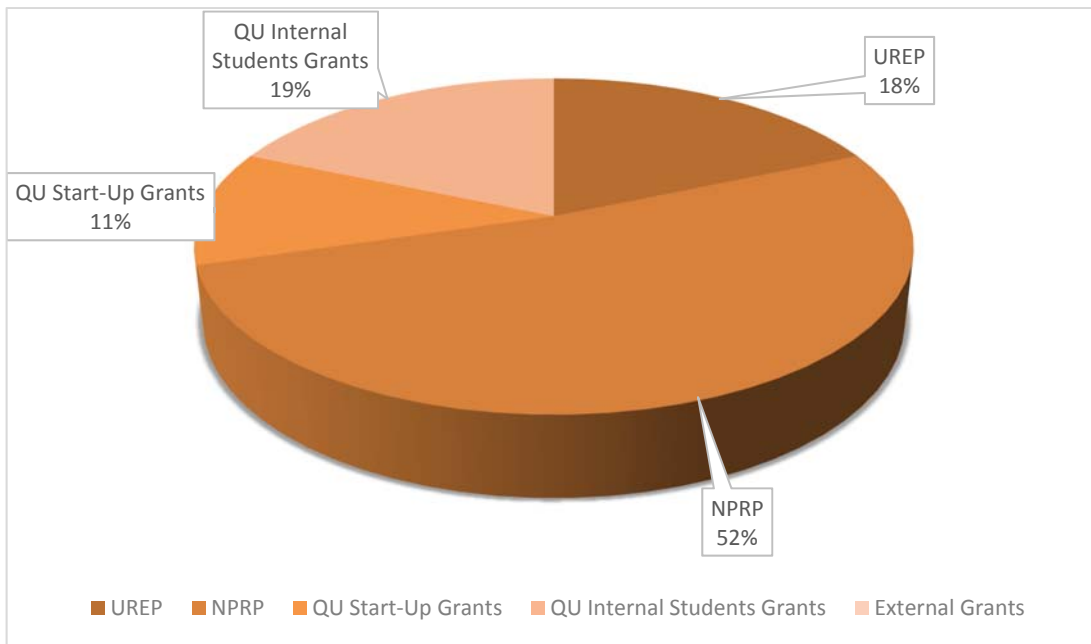


Figure 7: Research Projects Awarded in 2014-2015

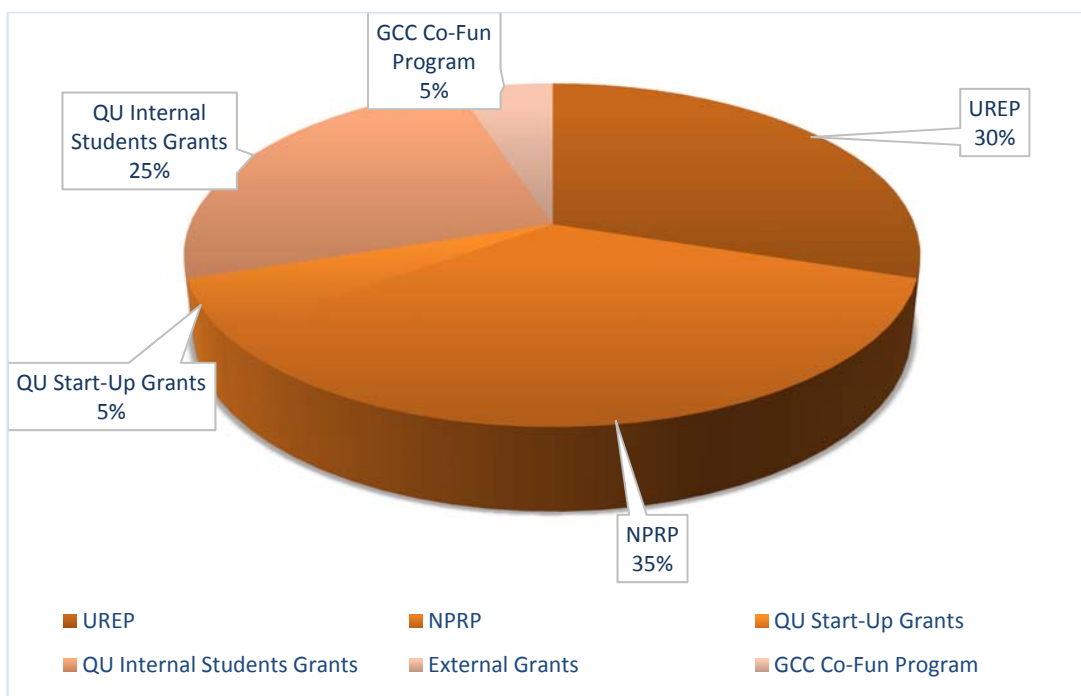
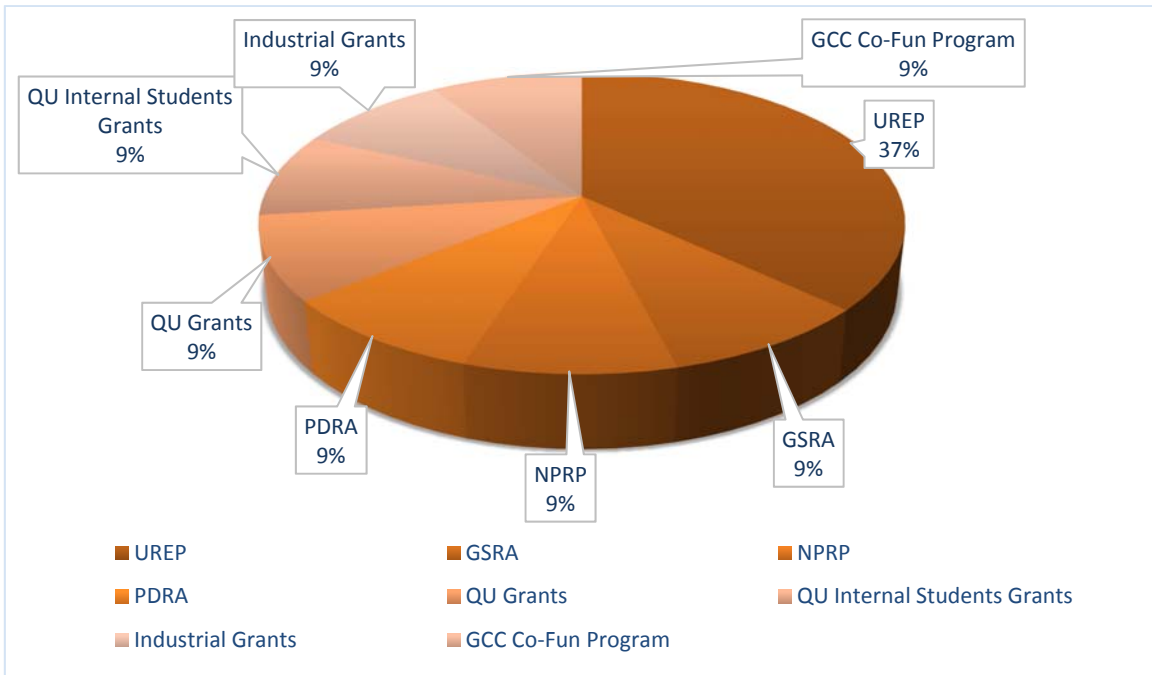
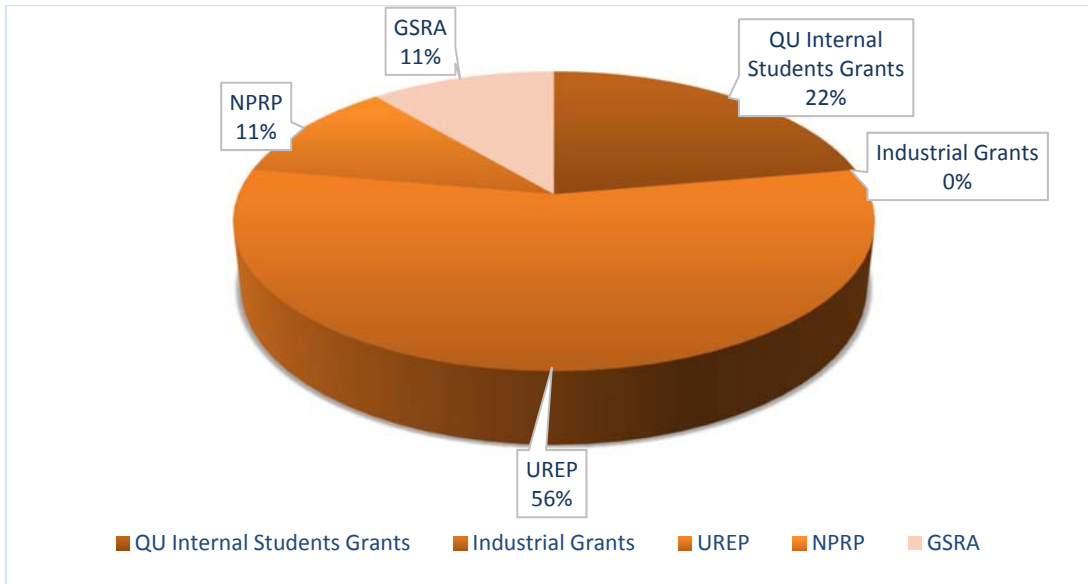


Figure 8: Research Projects Awarded in 2016.



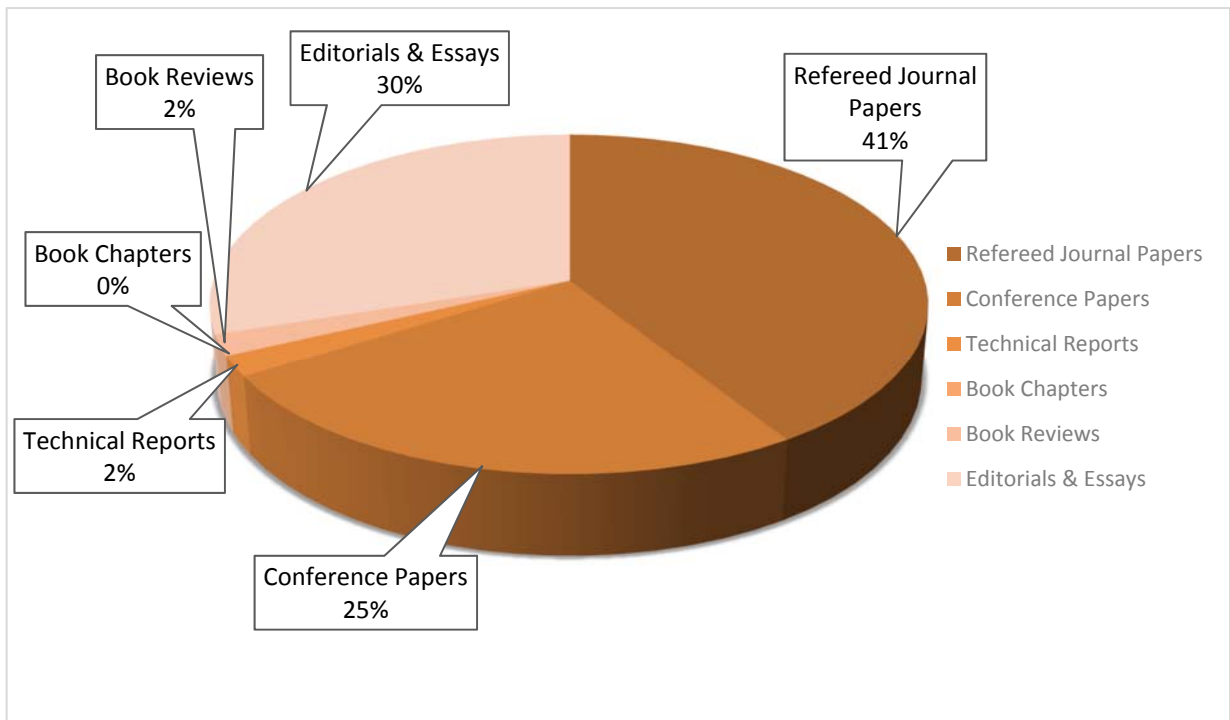
**Figure 9: Research Projects Awarded in 2017.**



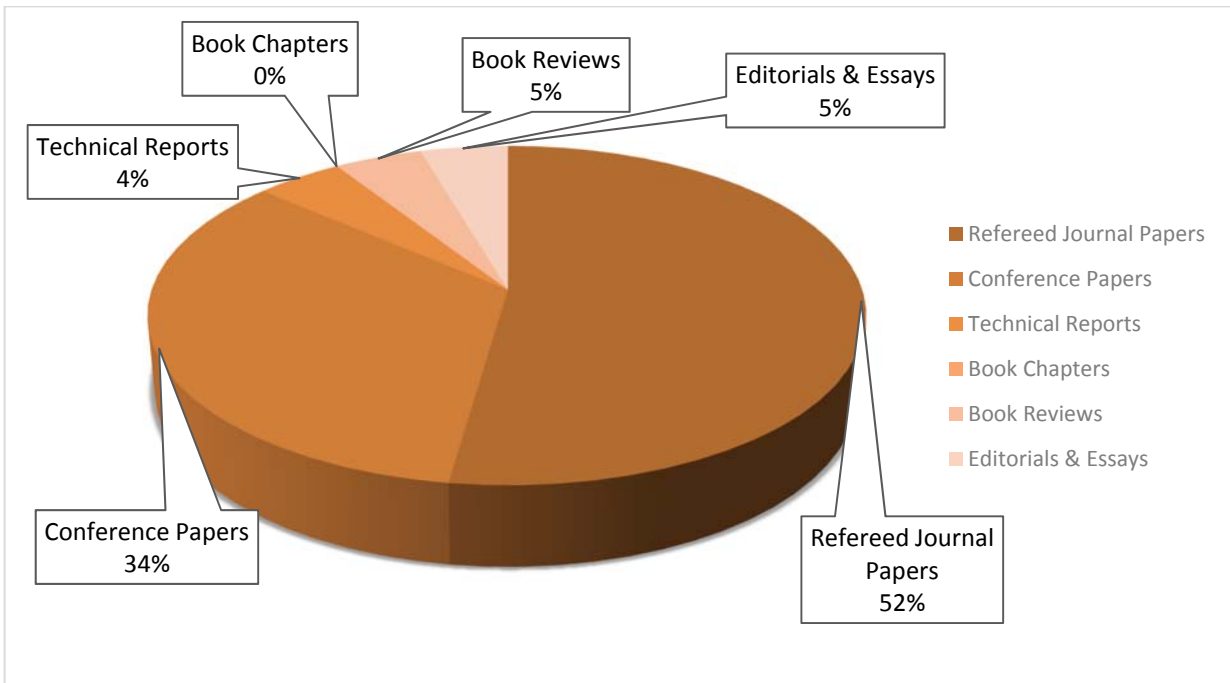
**Figure 10 Research Projects Awarded in 2018.**

### *Publications*

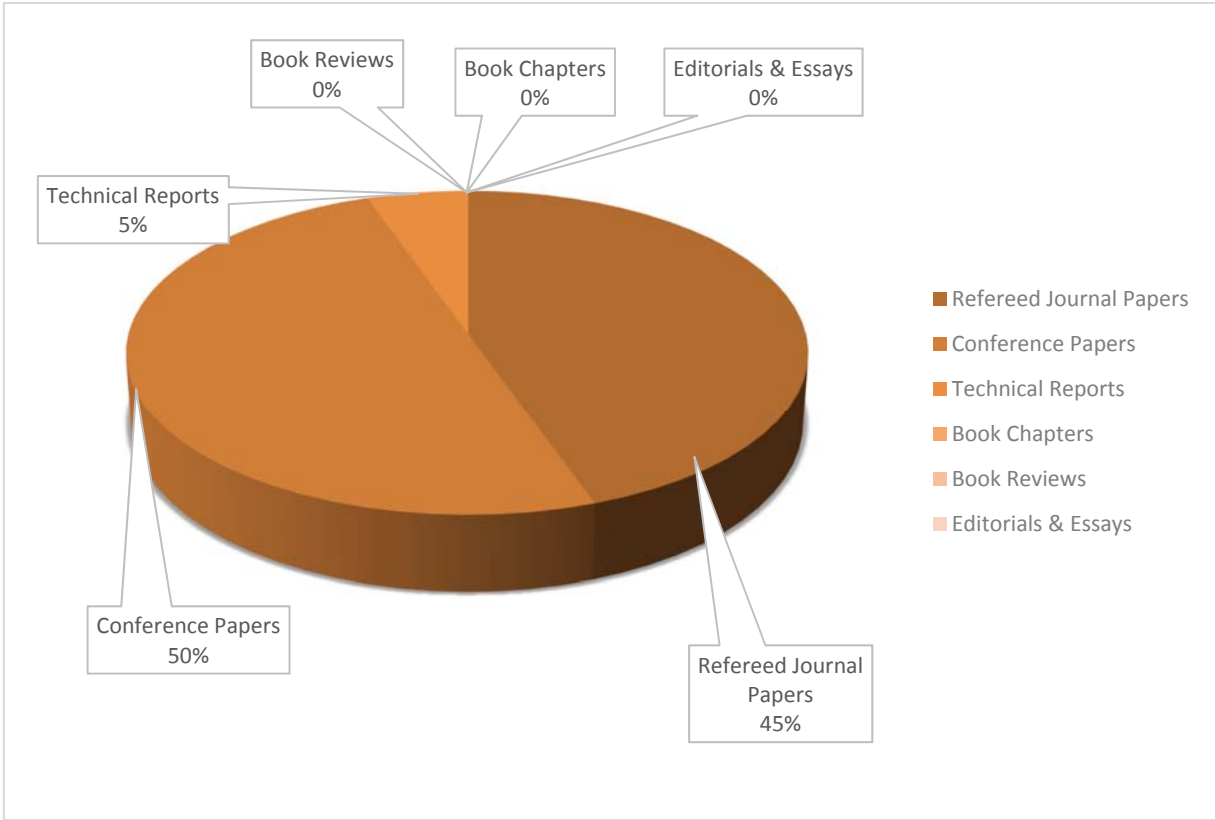
The Figures below illustrate the publications in the Department of CAE 2013 -2018. List of publications in 2018 are indicated with details in appendix A1.



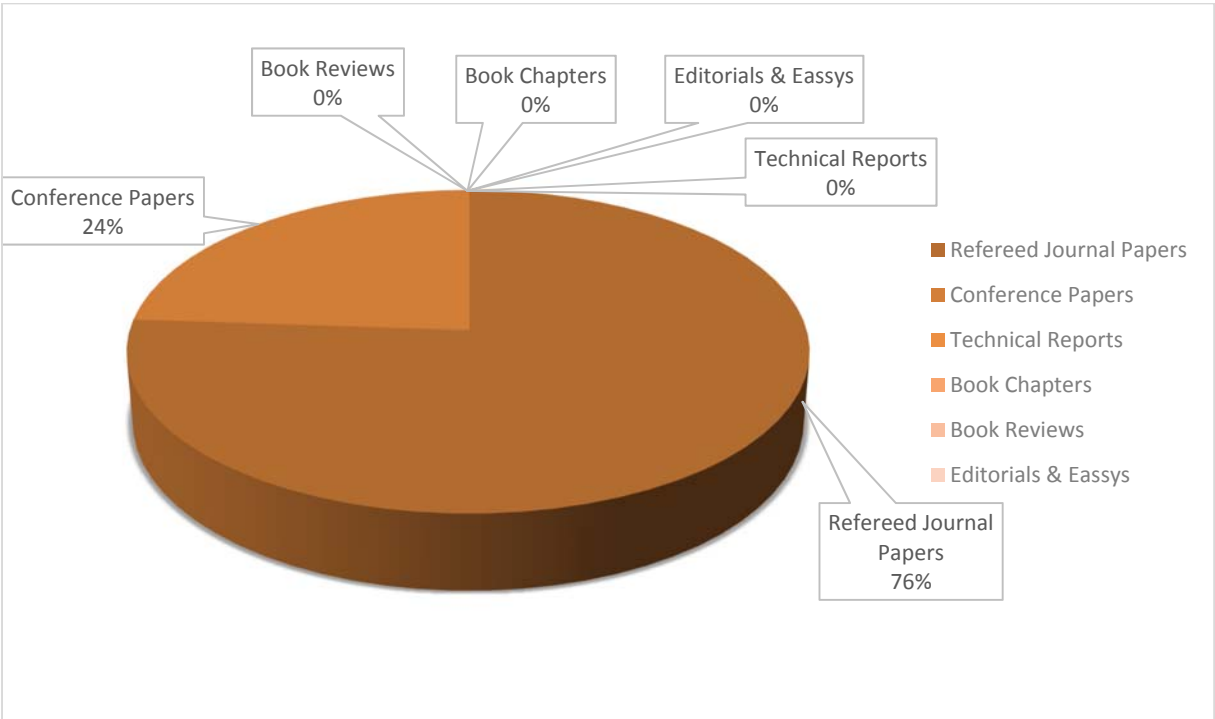
**Figure 11: Publications by Faculty in 2012-2013**



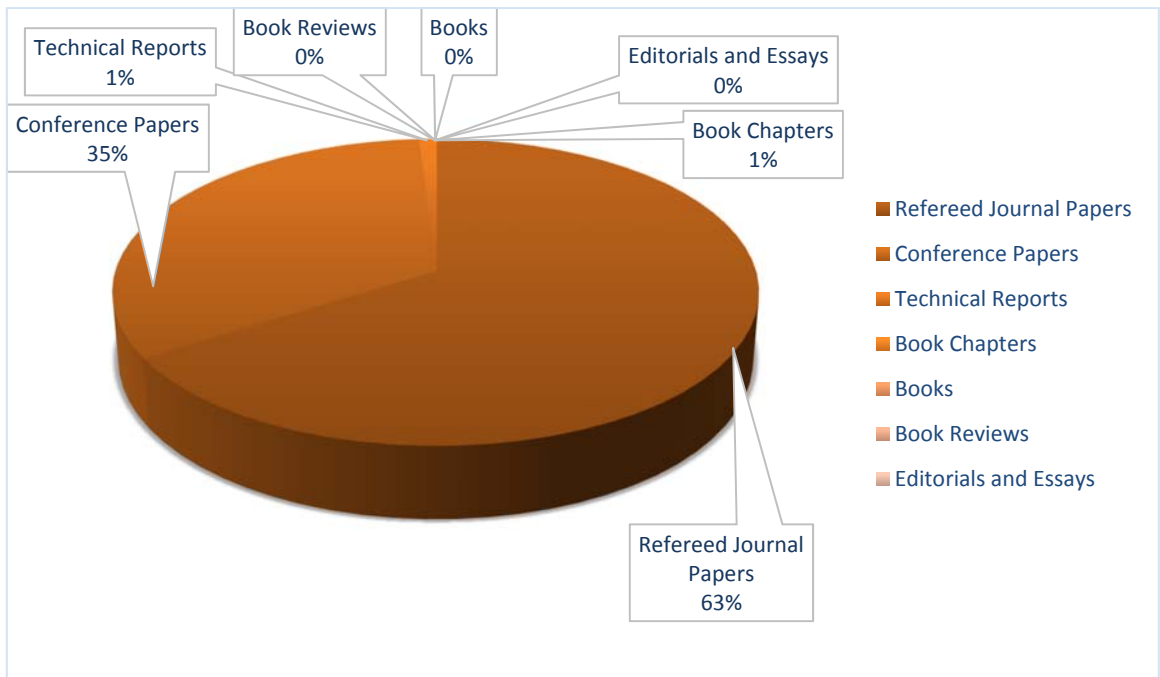
**Figure 12: Publications by Faculty in 2013-2014**



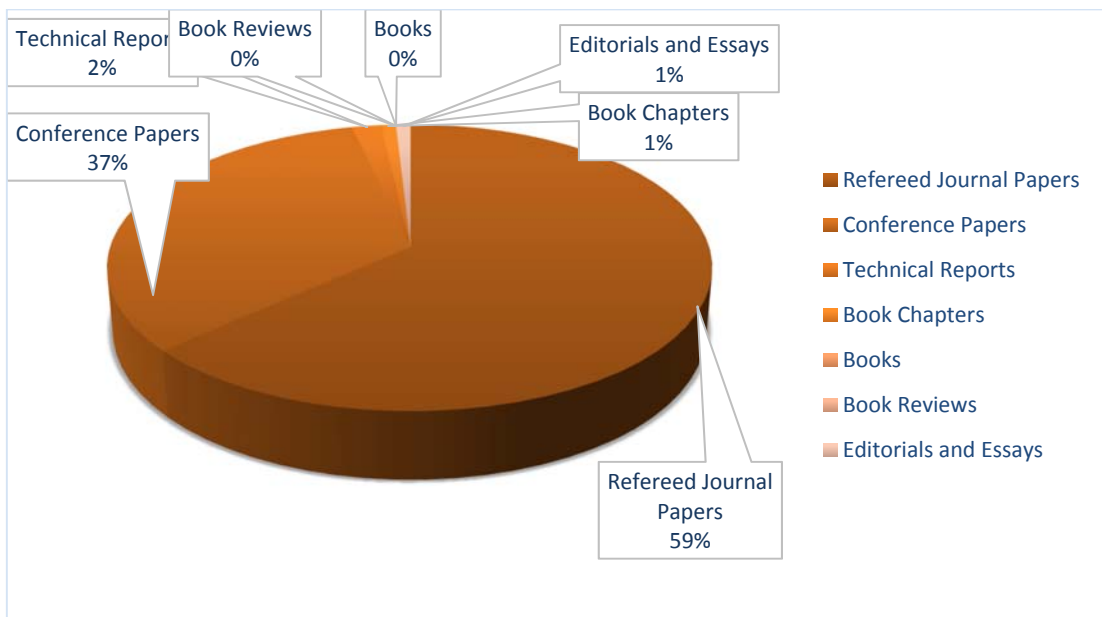
**Figure 13: Publications by Faculty in 2014-2015.**



**Figure 14: Publications by Faculty in 2016.**



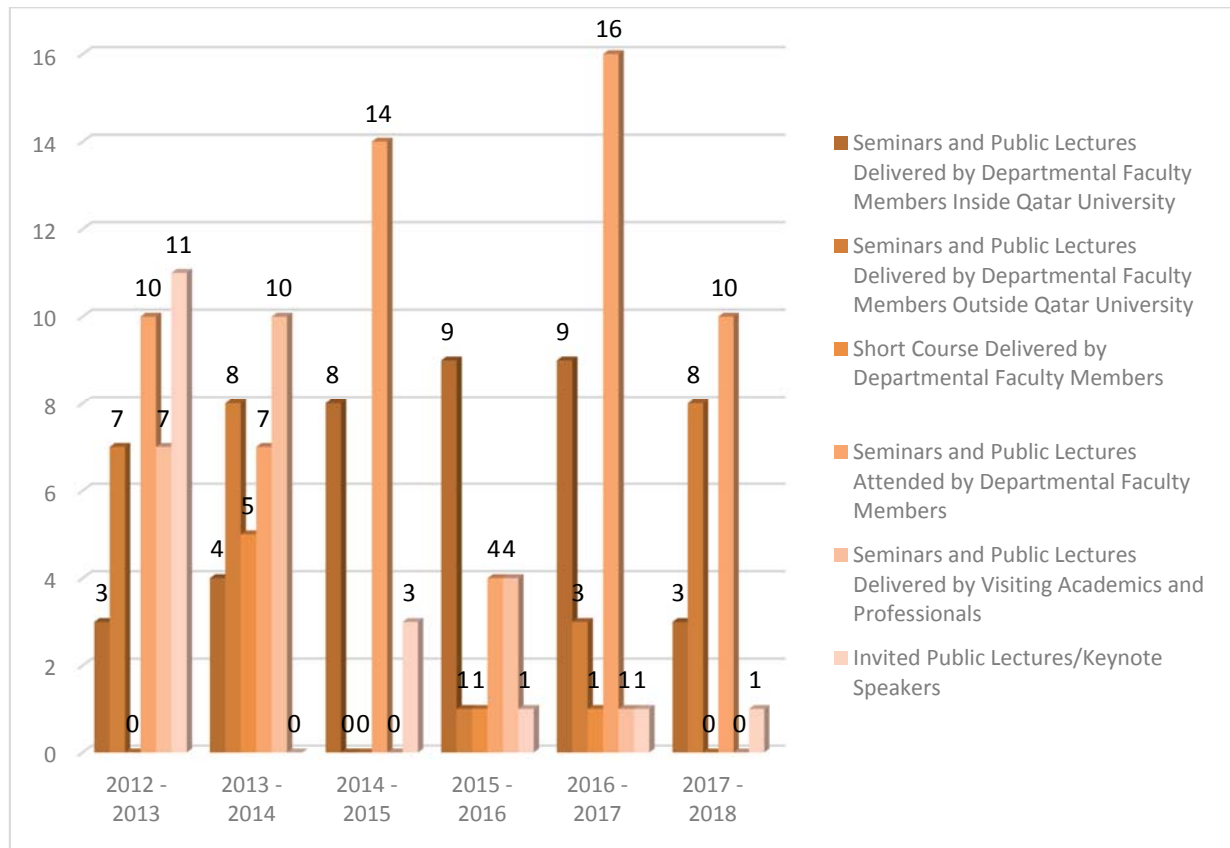
**Figure 15: Publications by Faculty in 2017.**



**Figure 13 Publications by Faculty in 2018**

## Seminars, Public Lectures

The Department of Civil and Architectural Engineering held many seminars for the calendar year 2017. 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 14: Seminars & Public Lectures in 2012-2018.**

academic experiences. Appendix A2 lists detailed data for seminars and public lectures.

## Professional Developments

A list of attended events namely conferences attended, workshops attended, and workshops given, and 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

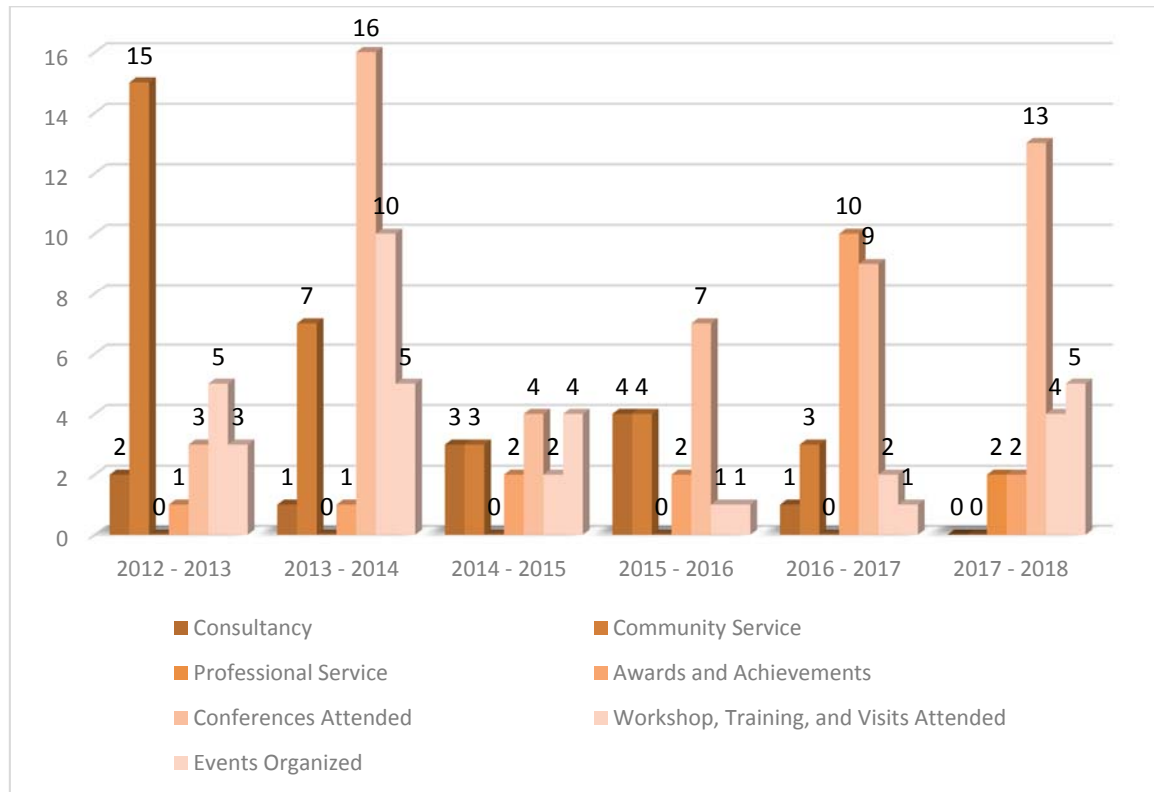


Figure 15: Faculty Activities in 2012-2018.

## Appendix A1: List of Publications

### Journal Papers

1. **Al-Ansari, M. S.**, Abu Taqa, A. G., Senouci, A., Hassan, M. M., Shaat, A., Effect of Calcium Nitrate Healing Microcapsules on Concrete Strength and Air Permeability, Magazine of Concrete Research 0, 1-12, 2018 (Date of publication: 10<sup>th</sup> January 2018)
2. **Al-Ansari, M. S. H.**, Afzal, M., Response of Buildings to Earthquake Loading by Structural Mixture Theory. International Journal of Civil and Structural Engineering – IJCSE, Volume 5(Issue -2), 89-102, 2018 (Date of publication: 28<sup>th</sup> December 2018)
3. Aljidda, O., **Alnahhal, W.**, Flexural behavior of basalt fiber reinforced concrete beams with recycled concrete coarse aggregates, Construction and Building Materials 169, 165–178, 2018 (Date of publication: 30<sup>th</sup> April 2018)
4. Haque, A. B. M. T., Ghachi, R. F., **Alnahhal, W. I.**, Aref, A., Shim, J., Sagittal Plane Waves in Infinitely Periodic Multilayered Composites Composed of Alternating Viscoelastic and Elastic Solids, Journal of Applied Mechanics 85 (4), 041001, 2018 (Date of publication: 1<sup>st</sup> April 2018)



5. **Alnahhal, W.**, Taha, R., Al-Nasser, H., Nishad, S., Effect of using Cement Kiln Dust as a nano-material on the strength of cement mortars, *KSCE Journal of Civil Engineering*, pp. 1-8. DOI: 10.1007/s12205-017-0010-6, 2018 (Date of publication: April 2018)
6. Radwan, A. B., Abdullah, A. M., **Alnuaimi, N. A.**, Recent advances in corrosion resistant superhydrophobic coatings, *Corrosion Reviews* 36 (2), 127-153, 2018 (Date of publication: 25<sup>th</sup> April 2018)
7. Sohail, M. G., Kahraman, R., Ozerkan, N. G., **Alnuaimi, N. A.**, Gencturk, B., Dawood, M., Belarbi, A., Reinforced Concrete Degradation in the Harsh Climates of the Arabian Gulf: Field Study on 30-to-50-Year-Old Structures, *Journal of Performance of Constructed Facilities* 32 (5), 04018059, 2018 (Date of publication: 1<sup>st</sup> October 2018)
8. Ngueleu, S. K., Rezanezhad, F., **Al-Raoush, R. I.**, Van Cappellen, P., Sorption of benzene and naphthalene on (semi)-arid coastal soil as a function of salinity and temperature, *Journal of contaminant hydrology* 219, 61-71, 2018 (Date of publication: 1<sup>st</sup> December 2018)
9. Jarrar, Z. A., **Al-Raoush, R. I.**, Hannun, J. A., Alshibli, K. A., Jung, J., 3D synchrotron computed tomography study on the influence of fines on gas driven fractures in Sandy Sediments, *Geomechanics for Energy and the Environment*, 2018 (Date of publication: 8<sup>th</sup> November 2018)
10. Mohanakrishna, G., Abu-Reesh, I. M., **Al-Raoush, R. I.**, Biological anodic oxidation and cathodic reduction reactions for improved bioelectrochemical treatment of petroleum refinery wastewater, *Journal of Cleaner Production* 190, 44-52, 2018 (Date of publication: 20<sup>th</sup> July 2018)
11. Merey, S., **Al-Raoush, R. I.**, Jung, J., Alshibli, K. A., Comprehensive literature review on CH<sub>4</sub>-CO<sub>2</sub> replacement in microscale porous media, *Journal of Petroleum Science and Engineering* 171, 48-62, 2018 (Date of publication: 11<sup>th</sup> July 2018)
12. Mohanakrishna, G., **Al-Raoush, R. I.**, Abu-Reesh, I. M., Induced bioelectrochemical metabolism for bioremediation of petroleum refinery wastewater: Optimization of applied potential and flow of wastewater, *Bioresource technology* 260, 227-232, 2018 (Date of publication: 1<sup>st</sup> July 2018)
13. Mohanakrishna, G., Abu-Reesh, I. M., Kondaveeti, S., **Al-Raoush, R. I.**, He, Z., Enhanced treatment of petroleum refinery wastewater by short-term applied voltage in single chamber microbial fuel cell, *Bioresource technology* 253, 16-21, 2018 (Date of publication: 1<sup>st</sup> April 2018)
14. Jung, J., Cao, S. C., Shin, Y. H., **Al-Raoush, R. I.**, Alshibli, K., Choi, J. W., A microfluidic pore model to study the migration of fine particles in single-phase and multi-phase flows in porous media, *Microsystem Technologies*, 24 (2), 1071-1080, 2018 (Date of publication: 1<sup>st</sup> February 2018)
15. Ckrey, A. M., Alshibli, K. A., **Al-Raoush, R. I.**, Discrete particle translation gradient concept to expose strain localisation in sheared granular materials using 3D experimental kinematic measurements, *Géotechnique* 68 (2), 162-170, 2018 (Date of publication: 1<sup>st</sup> February 2018)
16. Mohanakrishna, G., Abu-Reesh, I. M., **Al-Raoush, R. I.**, He, Z., Cylindrical graphite based microbial fuel cell for the treatment of industrial wastewaters and bioenergy generation, *Bioresource Technology* 247, 753-758, 2018 (Date of publication: 1<sup>st</sup> January 2018)
17. Younis, A., **Ebead, U.**, Suraneni, U., Nanni, A., Fresh and hardened properties of seawater-mixed concrete, *Construction and Building Materials* 190, 276-286, 2018 (Date of publication: 30<sup>th</sup> November 2018)
18. Wakjira, T., **Ebead, U.**, FRCM/internal transverse shear reinforcement interaction in shear

- strengthened RC beams, *Composite Structures* 201, 326-339, 2018 (Date of publication: 1st October 2018)
19. Elghazy, M., El-Refai, A., **Ebead, U.**, Nanni, A., Experimental results and modelling of corrosion-damaged concrete beams strengthened with externally-bonded composites, *Engineering Structures* 172, 172-186, 2018 (Date of publication: 1st October 2018)
  20. Elghazy, M., El-Refai, A., **Ebead, U.**, Nanni, A., Fatigue and Monotonic Behaviors of Corrosion-Damaged Reinforced Concrete Beams Strengthened with FRCM Composites, *Journal of Composites for Construction* 22 (5), 04018040, 2018 (Date of publication: 6th August 2018)
  21. Elghazy, M., El-Refai, A., **Ebead, U.**, Nanni, A., Corrosion-Damaged RC Beams Repaired with Fabric-Reinforced Cementitious Matrix, *Journal of Composites for Construction* 22 (5), 04018039, 2018 (Date of publication: 2<sup>nd</sup> August 2018)
  22. Hadad, A., Nanni, A., **Ebead, U.**, El-Refai, A., Static and Fatigue Performance of FRCM-Strengthened Concrete Beams, *Journal of Composites for Construction* 22 (5), 04018033, 2018 (Date of publication: 13<sup>th</sup> July 2018)
  23. Younis, A., **Ebead, U.**, Bond characteristics of different FRCM systems, *Construction and Building Materials* 175, 610-620, 2018 (Date of publication: 30<sup>th</sup> June 2018)
  24. Younis, A., **Ebead, U.**, Judd, S., Life cycle cost analysis of structural concrete using seawater, recycled concrete aggregate, and GFRP reinforcement, *Construction and Building Materials* 175, 152-160, 2018 (Date of publication: 30<sup>th</sup> June 2018)
  25. Elghazy, M., El-Refai, A., **Ebead, U.**, Nanni, A., Post-repair flexural performance of corrosion-damaged beams rehabilitated with fabric-reinforced cementitious matrix (FRCM), *Construction and Building Materials* 166, 732-744, 2018 (Date of publication: 30<sup>th</sup> March 2018)
  26. Wakjira, T., **Ebead, U.**, Hybrid NSE/EB technique for shear strengthening of reinforced concrete beams using FRCM: Experimental study, *Construction and Building Materials* 164, 164-177, 2018 (Date of publication: 10<sup>th</sup> March 2018)
  27. **Eid, H. T.**, Rabie, K. H., Closure to "Fully Softened Shear Strength for Soil Slope Stability Analyses" by Hisham T. Eid and Khaled H. Rabie, *International Journal of Geomechanics* 18 (4), 07018002, 2018 (Date of publication: 25<sup>th</sup> January 2018)
  28. Lau, F. D. H., Adams, N. M., Girolami, M. A., Butler, L. J., **Elshafie, M. Z. E. B.**, The role of statistics in data-centric engineering, *Statistics & Probability Letters* 136, 58-62, 2018 (Date of publication: 1<sup>st</sup> May 2018)
  29. Sasaki, T., Soga, K., **Elshafie, M. Z. E. B.**, Simulation of wellbore construction in offshore unconsolidated methane hydrate-bearing formation, *Journal of Natural Gas Science and Engineering* 60, 312-326, 2018 (Date of publication: 1<sup>st</sup> December 2018)
  30. **Gunduz, M.**, Khan, O. H., Effective Framework for Change Order Management Using Analytical Hierarchy Process (AHP), *Gazi University Journal of Science* 31 (4), 1079-1091, 2018 (Date of publication: 1<sup>st</sup> December 2018)
  31. **Gunduz, M.**, Maki, O. L., Assessing the Risk Perception of Cost Overrun Through Importance Rating in Construction Industry, *Technological and Economic Development of Economy* 24 (5), 1829-1844, 2018 (Date of publication: 1<sup>st</sup> October 2018)

32. **Gunduz, M.**, Yetisir, T., A design reuse technology to increase productivity through automated corporate memory system, *Neural Computing and Applications* 29 (9), 609-617, 2018 (Date of publication: 1<sup>st</sup> May 2018)
33. **Gunduz, M.**, Ahsan, B., Construction safety factors assessment through Frequency Adjusted Importance Index, *International Journal of Industrial Ergonomics* 64, 155-162, 2018 (Date of publication: 31<sup>st</sup> March 2018)
34. **Gunduz, M.**, Laitinen, H., Construction safety risk assessment with introduced control levels, *Journal of Civil Engineering and Management* 24 (1), 11-18, 2018 (Date of publication: 1<sup>st</sup> March 2018)
35. **Gunduz, M.**, Laitinen, H., Observation based safety performance indexing method for construction industry–validation with SMEs, *KSCE Journal of Civil Engineering* 22 (2), 440-446, 2018 (Date of publication: 1<sup>st</sup> February 2018)
36. **Gunduz, M.**, Birgonul, M. T., Ozdemir, M., Development of a safety performance index assessment tool by using a fuzzy structural equation model for construction sites, *Automation in Construction* 85, 124-134, 2018 (Date of publication: 31<sup>st</sup> January 2018)
37. **Gunduz, M.**, Yahya, A. M. A., Analysis of project success factors in construction industry, *Technological and Economic Development of Economy* 24 (1), 67-80, 2018 (Date of publication: 2018)
38. Kaddoura, K., Zayed, T., **Hawari, A. H.**, Multiattribute Utility Theory Deployment in Sewer Defects Assessment, *Journal of Computing in Civil Engineering* 32 (2), 04017074, 2018 (Date of publication: 22<sup>th</sup> November 2018)
39. Daher, S., Zayed, T., Elmasry, M., **Hawari, A.**, Determining Relative Weights of Sewer Pipelines' Components and Defects, *Journal of Pipeline Systems Engineering and Practice* 9 (1), 401-412, 2018 (Date of publication: 25<sup>th</sup> September 2018)
40. Elmasry, M., Zayed, T., **Hawari, A.**, Defect-Based ArcGIS Tool for Prioritizing Inspection of Sewer Pipelines, *Journal of Pipeline Systems Engineering and Practice* 9 (4), 04018021, 2018 (Date of publication: 24<sup>th</sup> July 2018)
41. **Hawari, A. H.**, Al-Qahoumi, A., Ltaief, A., Zaidi, S., Altaee, A., Dilution of seawater using dewatered construction water in a hybrid forward osmosis system, *Journal of Cleaner Production* 195, 365-373, 2018 (Date of publication: 28<sup>th</sup> May 2018)
42. **Hawari, A.**, Alamin, M., Alkadour, F., Elmasry, M., Zayed, T., Automated defect detection tool for closed circuit television (CCTV) inspected sewer pipelines, *Automation in Construction* 89, 99–109, 2018 (Date of publication: May 2018)
43. **Hawari, A.**, Alkadour, F., Elmasry, M., Zayed, T., Condition assessment model for sewer pipelines using fuzzy-based evidential reasoning, *Australian Journal of Civil Engineering*, DOI: 10.1080/14488353.2018.1444333, 2018 (Date of publication: 7<sup>th</sup> March 2018)
44. Du, F., **Hawari, A. H.**, Larbi, B., Ltaief, A., Pesch, G.R., Baune, M., Thöming, J., Fouling suppression in submerged membrane bioreactors by obstacle dielectrophoresis, *Journal of Membrane Science* 549, 466-473, 2018 (Date of publication: 1 March 2018)
45. Altaee, A., Zou, J., Alanezi, A. A., **Hawari, A. H.**, Osmotic Power Plant: Process Innovation and Future Potential, *Recent Advances in Petrochemical Science (RAPSCI)* 4 (3), 1-3, 2018 (Date of publication: 20<sup>th</sup> February 2018)

46. Larbi, B., Ltaief, A., **Hawari, A. H.**, Du, F., Baune, M., Thöming, J., Impact of Pulsed Dielectrophoretic Supply on the Function of Microorganisms in Membrane Bioreactors, *Journal of Environmental Engineering* 144 (4), 2018 (Date of publication: 8<sup>th</sup> February 2018)
47. Elmasry, M., **Hawari, A.**, Zayed, T., An economic loss model for failure of sewer pipelines, *Structure and Infrastructure Engineering* 14(10), 1312-1323, 2018 (Date of publication: 6<sup>th</sup> February 2018)
48. Avci, O., Abdeljaber, O., Kiranyaz, S., **Hussein, M.**, Inman, D. J., Wireless and real-time structural damage detection: A novel decentralized method for wireless sensor networks, *Journal of Sound and Vibration* 424, 158-172, 2018 (Date of publication: 23<sup>rd</sup> June 2018)
49. Brookes, D., Hamad, W. I., Talbot, J. P., Hunt, H. E. M., **Hussein, M. F. M.**, The dynamic interaction effects of railway tunnels: Crossrail and the Grand Central Recording Studios, *Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit* 232 (2), 542-559, 2018 (Date of publication: February 2018)
50. **Shaaban, K.**, Abdelwarith, K., Understanding the association between cell phone use while driving and seat belt noncompliance in Qatar using logit models, *Journal of Transportation Safety & Security* 1-17, 2018 (Date of publication: 10<sup>th</sup> July 2018)
51. **Shaaban, K.**, Muley, D., Elnashar, D., Evaluating the effect of seasonal variations on walking behaviour in a hot weather country using logistic regression, *International Journal of Urban Sciences* 22 (3), 382-391, 2018 (Date of publication: 3<sup>rd</sup> July 2018)
52. **Shaaban, K.**, Muley, D., Khalil, R., An assessment tool to evaluate complete streets in developing countries: the case of Qatar, *International Journal of Sustainable Society* 10 (3), 225-242, 2018 (Date of publication: 2018)
53. **Shaaban, K.**, Siam, A., Badran, A., Shamiyah, M., A simple method to assess walkability around metro stations, *International Journal of Sustainable Society* 10 (1), 1-19, 2018 (Date of publication: 2018)
54. **Shaaban, K.**, Hamad, H., Group Gap Acceptance: A New Method to Analyze Driver Behavior and Estimate the Critical Gap at Multilane Roundabouts, *Journal of Advanced Transportation*, 2018, (Date of publication: 9<sup>th</sup> May 2018)
55. **Shaaban, K.**, Muley, D., Mohammed, A., Analysis of illegal pedestrian crossing behavior on a major divided arterial road, *Transportation research part F: traffic psychology and behaviour* 54, 124-137, 2018 (Date of publication: 30<sup>th</sup> April 2018)
56. **Shaaban, K.**, Gaweesh, S., Ahmed, M. M., Characteristics and mitigation strategies for cell phone use while driving among young drivers in Qatar, *Journal of Transport & Health* 8, 6-14, 2018 (Date of publication: 1<sup>st</sup> March 2018)
57. **Shaaban, K.**, Pande, A., Evaluation of red-light camera enforcement using traffic violations, *Journal of Traffic and Transportation Engineering (English Edition)* 5 (1), 66-72, 2018 (Date of publication: 1<sup>st</sup> February 2018)
58. **Sirin, O.**, Ohiduzzaman, M., Kassem, E., Paul, D. K., Comprehensive evaluation of long-term aging of asphalt mixtures in hot climatic condition, *Road Materials and Pavement Design* 1-23, 2018 (Date of publication: 17<sup>th</sup> October 2018)

59. Sadeq, M., Masad, E., Al-Khalid, H., **Sirin, O.**, Mehrez, L., Linear and nonlinear viscoelastic and viscoplastic analysis of asphalt binders with warm mix asphalt additives, International Journal of Pavement Engineering 19 (10), 857-864, 2018 (Date of publication: 3<sup>rd</sup> October 2018)
60. **Sirin, O.**, Paul, D. K., Kassem, E., State of the Art Study on Aging of Asphalt Mixtures and Use of Antioxidant Additives, Advances in Civil Engineering, DOI: 10.1155/2018/3428961, 2018 (Date of publication: 29<sup>th</sup> March 2018)

### Top Tier Journals

No	Journal	Number of publications
1	Magazine of Concrete Research	1
2	Composite Structures	1
3	Construction and Building Materials	6
4	Journal of Applied Mechanics	1
5	Corrosion Reviews	1
6	Journal of contaminant hydrology	1
7	Journal of Cleaner Production	2
8	Journal of Petroleum Science and Engineering	1
9	Bioresource technology	3
10	Géotechnique	1
11	Engineering Structures	1
12	Journal of Composites for Construction	3
13	International Journal of Geomechanics	1
14	Journal of Natural Gas Science and Engineering	1
15	Technological and Economic Development of Economy	2
16	Neural Computing and Applications	1
17	Journal of Civil Engineering and Management	1
18	Automation in Construction	2
19	Journal of Computing in Civil Engineering	1
20	Journal of Membrane Science	1
21	Structure and Infrastructure Engineering	1
22	Journal of Sound and Vibration	1

23	Transportation research part F: traffic psychology and behaviour	1
24	Journal of Transport & Health	1
25	Road Materials and Pavement Design	1
26	International Journal of Pavement Engineering	1
27	<b>Total</b>	<b>38</b>

### Second Tier Journals

No	Journal	Number of publications
1	Journal of Performance of Constructed Facilities	1
2	Microsystem Technologies	1
3	Statistics & Probability Letters	1
4	International Journal of Industrial Ergonomics	1
5	KSCE Journal of Civil Engineering	2
6	Journal of Pipeline Systems Engineering and Practice	2
7	Journal of Environmental Engineering	1
8	Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit	1
9	Journal of Transportation Safety & Security	1
10	Journal of Advanced Transportation	1
11	Advances in Civil Engineering	1
	<b>Total</b>	<b>13</b>

### Other Journals

No	Journal	Number of publications
1	Geomechanics for Energy and the Environment	1
2	Recent Advances in Petrochemical Science	1
3	International Journal of Urban Sciences	1
4	International Journal of Sustainable Society	2
5	Journal of Traffic and Transportation Engineering	1
6	Gazi University Journal of Science	1

7	Australian Journal of Civil Engineering	1
8	International Journal of Civil and Structural Engineering – IJCSE,	1
	<b>Total</b>	<b>9</b>

## Conference Papers

1. **Alnahhal, W.**, Ghachi, R. F., Experimental study of the attenuation properties of metal-viscoelastic bi-layered materials, IOP Conference Series: Materials Science and Engineering, 380 (1), 012001, (23<sup>rd</sup> – 25<sup>th</sup> March 2018).
2. **Alnahhal, W.**, Ghachi R. F., Numerical study of the attenuation properties of viscoelastic metamaterials, IOP Conference Series: Materials Science and Engineering, 380 (1), 012002, (23<sup>rd</sup> – 25<sup>th</sup> March 2018).
3. **Alnahhal, W.**, Aljidda, O., Effect of Fiber Volume Fraction on Behavior of Concrete Beams Made with Recycled Concrete Aggregates, MATEC Web of Conferences 253, 02004 (8-10th November 2018)
4. Jarrar, Z. A., Alshibli, K. A., **Al-Raoush, R. I.**, Jung, J., Gas Driven Fracture During Gas Production Using 3D Synchrotron Computed Tomography, International Symposium on Energy Geotechnics, 344-351, (25<sup>th</sup> -28<sup>th</sup> September 2018).
5. Ngueleu, S., **Al-Raoush, R.**, Rezanezhad F., Van Cappellen, P., Sorption and biodegradation of petroleum hydrocarbons in (semi)-arid coastal soil environments as a function of salinity and temperature, EGU General Assembly Conference Abstracts, 20, 12298, (8th – 13th April 2018).
6. Jarrar, Z. A., Alshibli, K. A., **Al-Raoush, R. I.**, Jung, J., Gas Driven Fracture during Gas Production using HeleShaw Cell, Qatar Foundation Annual Research Conference Proceedings 2018, EEPD707, (12th March 2018).
7. Jung, J., Cao, S., **Al-Raoush, R.**, Alshibli, K., Fines migration and clogging behavior in methane hydrate bearing sediments, Qatar Foundation Annual Research Conference Proceedings 2018, EEPD710, (12th March 2018).
8. S. Ngueleu, **R. I. Al-Raoush**, F. Rezanezhad and P. Van Cappellen, “Sorption and biodegradation of petroleum hydrocarbons in (semi)-arid coastal soil environments as a function of salinity and temperature”, International Alumni Workshop at the Department of Geoscience, University of Tübingen, Germany, 2-4 August 2018.
9. Jae Eun Ryou, Jongwon Jung, Joo Yong Lee, **R. I. Al-Raoush** and Khalid A. Alshibli, An Experimental Study to Improve CH<sub>4</sub>-CO<sub>2</sub> Replacement Efficiency in Hydrate-bearing Sediments, Abstract OS23D-1642 presented at 2018 Fall Meeting, AGU, Washington, USA, D.C., 10-14 December, 2018.
10. Zaher A. Jarrar, Khalid A. Alshibli, **R. I. Al-Raoush**, and Jongwon Jung, 3D Synchrotron Microcomputed Tomography Study of Gas-driven Fracture of Saturated Granular Materials, Abstract H33T-2349 presented at 2018 Fall Meeting, AGU, Washington, D.C., USA, 10-14 December, 2018

11. Jamal Adel Hannun, Zaher A. Jarrar, **R. I. Al-Raoush**, Khalid A. Alshibli and Jongwon Jung, Impact of Fines on Gas Permeability in Sand Systems Using Pore Network Models, Abstract H33T-2336 presented at 2018 Fall Meeting, AGU, Washington, D.C., USA 10-14 December, 2018
12. S. Ngueleu, **R. I. Al-Raoush**, F. Rezanezhad and P. Van Cappellen, Sorption and Biodegradation of Benzene and Naphthalene in (Semi)-Arid Coastal Soil Environments as a Function of Temperature and Salinity, Abstract H53I-1704 presented at 2018 Fall Meeting, AGU, Washington, D.C., USA, 10-14 December, 2018
13. **Al-Raoush, R.**, Ngueleu, S., Rezanezhad F., Van Cappellen P., Groundwater pollution by petroleum-derived contaminants in coastal semiarid environment, Qatar Foundation Annual Research Conference Proceedings 2018, EEPD709, (12<sup>th</sup> March 2018).
14. Elghazy, M., El Refai, A., **Ebead, U.**, Nanni, A., Long-term performance of corroded beams repaired with FRCC composites, 15th International Conference on Structural and Geotechnical Engineering (ICSGE15), Cairo, Egypt, December (18- 20 December , 2018).
15. Du, X., **Ebead, U.**, Sabah, S., Stojcevski, A., Implementing PBL in Qatar - Civil Engineering students' views on their first experiences from a perspective of constructive alignment, 7th International Research Symposium on PBL (IRSPBL 2018), Tsinghua University, Beijing China, (October 19-21, 2018).
16. **Ebead, U.**, Younis, A., Characterization and application of FRCC as a strengthening material for shear-critical RC beams, The 5th International Conference on Concrete Repair, Rehabilitation and Retrofitting, ICCRRR 2018, Cape Town, South Africa, (November 19-21, 2018).
17. Younis, A. **Ebead, U.**, A study on the bond behavior of different FRCC systems, The 5th International Conference on Concrete Repair, Rehabilitation and Retrofitting, ICCRRR 2018, Cape Town, South Africa, (November 19-21, 2018).
18. **Ebead, U.**, Wakjira, T., Behaviour of RC beams strengthened in shear using near surface embedded FRCC, The 14th International Conference on Concrete Engineering and Technology, Kuala Lumpur, Malaysia, (August 8-9, 2018).
19. **Ebead, U.**, Wakjira, T., "FRCC/stirrups interaction in RC beams strengthened in shear using NSE-FRCC" The 14th International Conference on Concrete Engineering and Technology, Kuala Lumpur, Malaysia, (August 8-9, 2018).
20. Wakjira, T., **Ebead, U.**, A new approach for predicting the shear capacity of FRCC strengthened RC beams in shear, The 14th International Conference on Concrete Engineering and Technology, Kuala Lumpur, Malaysia, (August 8-9, 2018).
21. Wakjira, T., Afzal, M., **Ebead, U.**, Efficacy of FRCC systems in flexural strengthening of RC T-beams, The 14th International Conference on Concrete Engineering and Technology, Kuala Lumpur, Malaysia, (August 8-9, 2018).
22. Elghazy, M. El Refai, A., **Ebead, U.**, Nanni, A., Corroded beams repaired with PBO-fabric-reinforced cementitious matrix under fatigue loading, The 10th International Conference on Short and Medium Span Bridges (SMSB – X), Quebec City, Canada, (July 31-August 3, 2018).
23. **Gunduz, M.**, Naser A. F., Value Stream Mapping as a Lean Tool for Construction Projects, ICCEMS 2018: Third International Conference on Civil Engineering and Materials Science, (13th – 15th April 2018).



24. **Hawari, A. H.**, Larbi, B., Ltaief, A., Du, F., Baune, M., Thöming, J., The impact of hydrodynamic parameters on the effectiveness of mitigating fouling in submerged membrane bioreactors using dielectrophoresis, 7th International Conference on Applied Science and Engineering (ICASE) Tokyo, Japan, (10th of November, 2018).
25. Larbi, B., Du, F., Baune, M., Thöming, J., **Hawari, A. H.**, Numerical study on the effect of insulator size and shape on fouling suppression by electrodeless dielectrophoresis in submerged membrane bioreactors, AIP Conference Proceedings, 1982 (1), 020038, 2018 (27<sup>th</sup> July 2018).
26. Abdeljaber, O., **Hussein, M.**, Avci, O., In-service video-vibration monitoring for identification of walking patterns in an office floor, the 25th International Congress on Sound and Vibration (ICSV25), Hiroshima, Japan (8<sup>th</sup> -12<sup>th</sup> July 2018).
27. Aldous, K., **Hussein, M.**, Abdeljaber, O., Ground-borne vibration investigation by modelling the tunnel-soil interaction using a Finite Element Package, the 25th International Congress on Sound and Vibration (ICSV25), Hiroshima, Japan (8<sup>th</sup> -12<sup>th</sup> July 2018).
28. **Shaaban, K.**, Khalil, R., Where Is Qatar from Complete Streets?, International Conference on Applied Human Factors and Ergonomics, 684-694, (21st – 25th July 2018).
29. **Shaaban, K.**, Who Is Going to Ride the Upcoming Metro in Qatar?, International Conference on Applied Human Factors and Ergonomics, 671-675, (21st – 25th July 2018).
30. **Shaaban, K.**, Using Logistic Regression to Understand the Behavior of Young Drivers in Terms of Seat Belts Usage, Transportation Research Board 97th Annual Meeting Transportation Research Board, (7th – 11th January 2018).
31. **Shaaban, K.**, Hamad, H. A., Critical Gap Analysis of Single and Double Lane Roundabouts in Qatar, Transportation Research Board 97th Annual Meeting Transportation Research Board, (7th – 11th January 2018).
32. **Sirin, O.**, Ohiduzzaman M., Kassem, E., Effect of Pavement Surface Aging on Tire-Pavement Noise: A Case Study in the State of Qatar, MATEC Web of Conferences 203, 05002, (13th -14th August 2018).
33. Kim, I., Larue, G., Ferreira, L., Rakotonirainy, A., **Shaaban, K. S.** (2018). Driver Behaviors at Level Crossings from Fixed and Moving Driving Simulators. Procedia Computer Science (vol. 130, pp. 103-110). [https://api.elsevier.com/content/abstract/scopus\\_id/85051274265](https://api.elsevier.com/content/abstract/scopus_id/85051274265), 2018.
34. **Shaaban, K. S.**, Ghanim, M. S. M., Evaluation of Transit Signal Priority Implementation for Bus Transit along a Major Arterial Using Microsimulation. Procedia Computer Science (vol. 130, pp. 82-89). [https://api.elsevier.com/content/abstract/scopus\\_id/85051280565](https://api.elsevier.com/content/abstract/scopus_id/85051280565), 2018
35. Ohiduzzaman, M., **Sirin, O.**, Kassem E., Evaluation of traffic noise in the State of Qatar, Advances in Materials and Pavement Prediction: Papers from the International Conference on Advances in Materials and Pavement Performance Prediction (AM3P 2018), Doha, Qatar, (16th -18th April 2018).
36. Sadeq, M., Masad, E. A., Al-Khalid, H., **Sirin, O.**, Characterisation of air voids in W-FAM samples using X-Ray CT imaging, Advances in Materials and Pavement Prediction: Papers from the International Conference on Advances in Materials and Pavement Performance Prediction (AM3P 2018), Doha, Qatar, (16th -18th April 2018).

37. Ohiduzzaman, M., **Sirin, O.**, Kassem, E., Comprehensive Evaluation of Asphalt Pavement Acoustic Performance by Using Onboard Sound Intensity Method, Transportation Research Board 97th Annual Meeting Transportation Research Board, 2018 (7th – 11th January 2018).

### Top Tier Conferences (Indexed in Web of Science)

No	Conference	Number of publications
1	International Conference on Applied Science and Engineering	1
2	The 5th International Conference on Concrete Repair	2
3	Third International Conference on Civil Engineering and Materials Science	1
4	International Conference on Applied Human Factors and Ergonomics	2
5	AGU Fall meeting	4
	<b>Total</b>	<b>10</b>

### Second Tier Conferences (Indexed in Scopus only)

No	Conference	Number of publications
1	The 10th International Conference on Short and Medium Span Bridges (SMSB – X)	1
2	The 25th International Congress on Sound and Vibration (ICSV25)	2
3	International Symposium on Energy Geotechnics	1
4	EGU General Assembly Conference Abstracts	1
5	Transportation Research Board 97th Annual Meeting Transportation Research Board	3
6	The 14th International Conference on Concrete Engineering and Technology	4
7	MATEC Web of Conferences	2
8	IOP Conference Series: Materials Science and Engineering	2
9	AIP Conference Proceedings	1
10	Procedia Computer Science	2
	<b>Total</b>	<b>19</b>

### Others

No	Conference	Number of publications
1	Qatar Foundation Annual Research Conference Proceedings 2018	3
2	International Conference on Advances in Materials and Pavement Performance Prediction (AM3P 2018)	2

4	7th International Research Symposium on PBL (IRSPBL 2018)	1
5	15th International Conference on Structural and Geotechnical Engineering (ICSGE15)	1
6	International Alumni Workshop at the Department of Geoscience	1
	<b>Total</b>	<b>8</b>

### Book chapters

- **Dr.Alaa Hawari**, A. Altaee, A.A. Alanezi, A.H. Hawari, Forward osmosis feasibility and potential future application for desalination, Emerging Technologies for Sustainable Desalination Handbook, 35-54, 2018 (Date of publication: 27 April 2018)

### Patents

Nil

### Technical Reports

1. **Ebead**, U.A. (2017). STUDIES ON THE STRENGTHENING OF REINFORCED CONCRETE STRUCTURES USING FRCM.
2. **Riyadh Al-raoush**. 4 Progress Reports submitted to QNRF

### Editorials and Essays

**Riyadh Al-raoush** Editorial Board member: Pollution Prevention and Control Journal

## Appendix A2- Seminars – Public Lectures – Short Courses

### Seminars and Public Lectures Delivered by Departmental Faculty Members Inside Qatar University

- **Usama Ebead**, Project-based learning: QU Civil Engineering Pioneer Application, October 24, 018, B09-106F
- **Alaa Hawari**, Seminar presented in the Workshop on Funding Opportunities with Hints and Tips, 3<sup>rd</sup> of October, 2018. Title of seminar: “Hints and Tips on National Priority Research Program - Standard (NPRP-S)”
- **Riyadh I. Al-Raoush**, Non-Destructive Evaluation of Hydraulic Properties of Road Materials, Workshop held at Ashgal, Doha, Qatar , April 4, 2018

## Seminars and Public Lectures Delivered by Departmental Faculty Members Outside Qatar University

- **Hussein, M.**, Buildings vibration from railway trains, Advances in Civil Engineering and potential developments and implementations for Qatar, a one day workshop, 4<sup>th</sup> of April 2018, Ashghal Tower 3, Doha, Qatar.
- **Hawari, A.**, Seminar presented in the workshop at Ashghal entitled “Advances in Civil Engineering and potential developments and implementations for Qatar”. Seminar title: High Quality Treated Sewage Effluent (TSE) for Irrigation Purposes. 4<sup>th</sup> of April, 2018.
- **Ebead, U.**, Workshop: Advances in Civil Engineering and potential developments and implementations for Qatar, a one day workshop, 4<sup>th</sup> April, 2018, Ashgal. Title of Dr. Ebead seminar: Strengthening of corroded structures using innovative techniques
- **Ebead, U.**, Seminar at Parsons International titled: Towards Sustainable Concrete, Dec. 16, 2018.
- **Gunduz, M.**, ASHGAL Workshop, ASHGAL premises, 04-04-2018 Constructing Excellence, W-Hotel, Doha, 17-12-2018
- **Shaaban, K.**, International Traffic Safety Conference 2018, Measuring Pedestrian Jaywalking Behavior in Qatar, November 26-27 2017, Doha, Qatar.
- **Shaaban, K.**, and R. Khalil: Where Is Qatar from Complete Streets?, International Conference on Applied Human Factors and Ergonomics, 684-694, (21st – 25th July 2018).
- **Shaaban, K.**, : Who Is Going to Ride the Upcoming Metro in Qatar?, International Conference on Applied Human Factors and Ergonomics, 671-675, (21st – 25th July 2018).

## Short Course Delivered by Departmental Faculty Members

### Seminars and Public Lectures Attended by Departmental Faculty Members

- **Hussein, M.**, Constructing Excellence in Qatar, Ahmad Al Ansari, Don Ward, & Jenefer Alam, 13th August 2018, Rotana City Centre, West Bay, Qatar
- **Ebead, U.**, Seminar: How to Create and Deliver Interactive Lectures, April 24, 2018, OFID Room 201 Building C02 Seminar: Finding and Using On-Line Resources to Facilitate Teaching

- and Learning, May 02, 2018, Center for Excellence in Teaching and Learning (CETL) Building C02, Room 201
- **Ebead, U.**, Seminar: Implementing Cognitive 'Nudges' to Promote Student-Centered Learning Experiences, May 13, 2018, Center for Excellence in Teaching and Learning (CETL) Building C02, Room 201
  - **Ebead, U.**, Seminar: How to Integrate Live Audience Surveys into PowerPoint or Keynote Presentations to Create Interactive-Learning Experiences, September 26, 2018, Center for Excellence in Teaching and Learning (CETL) Building C02, Room 201
  - **Ebead, U.**, Seminar: How to Survive (and Succeed) at Student Evaluations of Teaching, November 04, 2018, Center for Excellence in Teaching and Learning (CETL) Building C02, Room 201
  - **Gunduz, M.**, Seminar by Lamis Ahmed: Sprayed Concrete (02-01-2018)
  - **Gunduz, M.**, Seminar by Dr. Luai Sabek- Qatari Diar, 03-10-2018
  - **Gunduz, M.**, TBL - Team Based Learning: Better than PBL? 16-10-2018
  - **Gunduz, M.**, Project Based Learning by Dr. Usama Ebead, 24-10-2018
  - **Sirin, O.**, Seminar: Hot Mix Asphalt Recycling Design and Production Key Control Points, Speaker: John D'Angelo, Date: 28/2/2018, Place: Hilton Hotel, Doha, Qatar

## Seminars and Public Lectures Delivered by Visiting Academics and Professionals

### Invited Public Lectures/Keynote Speakers

**M. Gunduz**, Invited Speech: 9th International Conference on OSH Istanbul, Turkiye (5/7/2018)

## Appendix-A3-Faculty-Activities

(Note: In this appendix, "Professional Development" includes 'conference attended', 'workshops attended', 'workshops given', and 'organized events'.)

### Consultancy

### Community Service:

- Naji, K., Member of the Ministry of Justice Committee for Professionals Evaluations.

Professionals who serve as experts in different areas in the Qatari Courts. March 2018 - December 2019.

- Naji, K., Member of the Qatari National Comm. for Engineering Accreditation and Evaluation. March 2018 - March 2019.
- Alnohmi, N., 13 visits to different national high schools to promote Civil Engineering for high school students, 2018

## Professional Service

- **M. Hussein**, Director for the International Institute of Acoustics and Vibration (IIAV), from July 2015.
- **M. Hussein**, Reviewed papers for Journal of Sound and Vibration, Soil Dynamics and Earthquake Engineering, and Applied Acoustics.

## Awards and Achievements

### Research awards

- **Al-Raoush, R.**, received the James R. Croes Medal for the best scientific paper awarded by the American Society of Civil Engineers on 10 April 2018.

### Research recognition

- **Hisham, E.**, Nomination to Thomas A. Middlebrooks Award, American Society of Civil Engineering. 2018.

### Service to profession awards

- **Shaaban, K.** Elsevier Reviewer Recognition Award awarded on May, 2018.
- **Alhawari, A.**, Outstanding reviewing contribution, Automation in Construction. June 2018
- **Alhawari, A.**, Outstanding reviewing contribution, Desalination Journal. March 2018
- **Ebead, U.**, Outstanding Reviewer Award, Elsevier-Engineering Structures. November 2018
- **Shaaban, K.**, Elsevier Reviewer Recognition, Elsevier. May 1, 2018.

## Conferences Attended

- **Hawari A.**, International Conference on Mathematical Methods & Computational Techniques in Science & Engineering (MMCTSE 2018) Cambridge, UK, February 16-18, 2018.
- **Hawari A.**, 7<sup>th</sup> International Conference on Applied Science and Engineering (ICASE) Tokyo, Japan, 10<sup>th</sup> of November, 2018
- **Al-Raoush, R.**, EGU General Assembly Conference, Vienna, Austria, (8th – 13th April 2018).
- **Al-Raoush, R.**, Qatar Foundation Annual Research Conference 2018 (12th March 2018).

- **Ebead, U.**, attended the following conference: The 5th International Conference on Concrete Repair, Rehabilitation and Retrofitting, ICCRRR, 2018, Cape Town. 18-20 November 2018.
- **Ebead, U.**, visited the University of Miami to follow up on the Progress of NPRP project, April 8-14 2018.
- **Gunduz, M.**, ICCEMS 2018, Chengdu China
- **Sirin, O.**, 3 rd International Conference on Materials Technology and Applications (ICMTA2018), Hokkaido, Japan, 26-29 October 2018.
- **Sirin, O.**, International Conference on Civil, Offshore and Environmental Engineering (ICCOEE 2018), MATEC Web of Conferences, Kuala Lumpur, Malaysia, 13-15 August 2018.
- **Sirin, O.**, Advances in Materials and Pavement Performance Prediction (AM3P) Conference, Doha, Qatar, 16-18 April 2018.
- **Sirin, O.**, QF Annual Research Conference, Doha, Qatar, 19-20 March 2018.
- **Shaaban, K.**, International Traffic Safety Conference 2018, November 26-27 2017, Doha, Qatar.
- **Shaaban, K.**, The 9th International Conference on Applied Human Factors and Ergonomics (AHFE 2018) and the Affiliated Conferences, Orlando, Florida, USA July 21-25, 2018.
- **Naji, K.**, DroneDeploy Conference SAN Francisco USA, United States, October 2018

## Workshop, Training, and Visits Attended

- **Hawari, A.**, Workshop delivered at the Center for Excellence in Teaching and Learning (CETL), Qatar University, to Junior Qatari Faculty. Title of workshop "Preparing and applying for QNRF fund opportunities", 14<sup>th</sup> of November, 2018.
- **Ebead, U.**, Attendee, Workshop: Problem Based Learning Workshop, 16-17 January 2018. CENG Conference Room, B-09.
- **Ebead, U.**, Attendee, ACI 562-16 Repair Code Seminar, March 22, 2018, Westin Hotel.
- **Sirin, O.**, Advances in Civil Engineering and potential developments and implementations for Qatar, Organizer: Ashghal on 4 April 2018, in Doha, Qatar
- **Naji, K.**, Workshop, CETL Workshop Presenter Dec 2018      Qatar, December 2018
- **Naji, K.**, Conference Participation, DroneDeploy Conference SAN Francisco USA      United States, October 2018
- **Abu-Hijleh, A.**, Seminar, National Challenge 2022 press conference, Qatar University, Qatar, November, 18, 2018
- **Abu-Hijleh, A.**, Seminar, Lean Construction "Improving the Project Delivery Process", Department of Civil and Architectural Engineering, Qatar, October 4, 2018

- **Abu-Hijleh, A.**, Workshop, An Introduction to Activity Insight by Digital Measures, QU – CETL, Qatar, October 1, 2018
- **Abu-Hijleh, A.**, Workshop, Opent Text Web Experience Management, College of Engineering, Qatar, October 1, 2018
- **Abu-Hijleh, A.**, Workshop, Assignment and Plagiarism Tools in BB, QU – CETL, Qatar, September 17, 2018
- **Afzal, M.**, Workshop, How to Integrate Live Audience Surveys into PowerPoint or Keynote Presentations, Center for Excellence in Teaching and Learning, Qatar September 23, 2018
- **Afzal, M.**, Online Training Programs, Motivating Students, Center for Excellence in Teaching and Learning, Qatar, April 5, 2018
- **Afzal, M.**, Online Training Programs, Interactive Lectures Center for Excellence in Teaching and Learning, Qatar, April 4, 2018
- **Alnohmi, N.**, Workshop, Preparations the feasibility study for the medium projects, College of Business and Economics, Qatar, December 2, 2018 - December 12, 2018
- **Alnohmi, N.**, Training, Training Program in Project Management Professional (PMP), Global Innovation for Training & Consulting, Qatar, November 2018
- **Alnohmi, N.**, Workshop, Tamiz Nama 2 Workshop, Nama Empowerment & Entrepreneurship Social, Qatar, November 2018
- **Alnohmi, N.**, Seminar, National Challenge 2022 press conference, Qatar University, Qatar, November 18, 2018
- **Alnohmi, N.**, Workshop, How to Deliver a Professional Presentation (( Trainer ruchi Kappor)), QU- Career Services Center Qatar, October 8, 2018
- **Alnohmi, N.**, Conference Participation, Lean Construction “Improving the Project Delivery Process” by Dr. Sabek, Qatar University Qatar, October 4, 2018
- **Alnohmi, N.**, Workshop, An Introduction to Activity Insight by Digital Measures, QU- CETL, Qatar, October 1, 2018
- **Alnohmi, N.**, Seminar, Seminar by Engineers Australia, Qatar University, Qatar, September 25, 2018
- **Alnohmi, N.**, Workshop, Assignment and Plagiarrism Tools in BB, QU- CETL, Qatar, September 17, 2018
- **Alnohmi, N.**, Continuing Education Program, FPRDS Guidelines and Digital Measures, College of Engineering Research and Graduate Studies Building (B09), Qatar, January 7, 2018
- **Rabie, K.**, PhD Oral Defense - Eng. Osama Abdeljaber: Real-Time Structural Damage Detection Using One-dimensional Convolutional Neural Networks, Department of Civil and Architectural Engineering, Qatar, November 27, 2018



- **Rabie, K.**, Senior Design - Poster Competition (Fall 2018), Department of Civil and Architectural Engineering, Qatar, November 7, 2018
- **Rabie, K.**, Seminar, CENG Ideas Bank, College of Engineering, QU, Qatar, October 22, 2018
- **Rabie, K.**, Seminar, SHRINKAGE CRACKING OF SOILS AND CEMENTITIOUSLY-STABILIZED SOILS: MECHANISMS AND MODELING, Department of Civil and Architectural Engineering, Qatar, April 19, 2018
- **Sikder, S.**, Conference Participation. International Traffic Safety. ITSC. Qatar. November 26, 2018
- **Sikder, S.**, Field Visit to Doha North Sewage Treatment Plant with the Civil Engineering Students group. Ashghal Qatar. November 5, 2018
- **Sikder, S.**, Seminar. Achieving "Cognitive Closure" at the end of Each Lesson: Why it is important How to do it?. OFID. Qatar. April 19, 2018
- **Sikder, S.**, Field Visit to Umm Al Houl Power (UHP) desalination and electricity generation plant. Ashghal. Qatar. April 17, 2018
- **Sikder, S.**, Self-Study Program. Training on Computational Fluid Dynamics (CFD). Qatar University. Qatar. October 1, 2017 - April 1, 2018
- **Sikder, S.**, Seminar. How to succeed at Students Evaluations of Teaching. OFID. Qatar. March 29, 2018

## Workshop, Training, and Visits Delivered

- **Al-Raoush, R.**, Online Training Programs, Parallel Programming with MATLAB, Mathworks, United States, June 2018 - Present
- **Al-Raoush, R.**, Online Training Programs, Mathematical Modeling with MATLAB Products, Mathworks, United States, 2018 - Present
- **Al-Raoush, R.**, Maintained a Professional Engineering License in the State of Louisiana, USA (Active License # PE.0033258), LES, United States, March 2015 - March 2020
- **Al-Raoush, R.**, Seminar, Attended many seminars at QU, Qatar January 2018 - December 2018
- **Al-Raoush, R.**, Research visit to Argonne National Lab, QNRF, United States, July 1, 2018 - July 10, 2018
- **Hawari, A.**, Workshop, Workshop: How to Integrate Live Audience Surveys into PowerPoint or Keynote Presentations to Create Interactive-Learning Experiences., OFID Qatar, February 28, 2018
- **Hawari, A.**, Seminar, QU students: Who are they and what are they thinking?, Qatar University – OFID, Qatar, January 16, 2018
- **Alnahhal, W.**, Seminar, A Special Workshop for Industry and Academics “Bridging the Gap”, Ashgal & College of Engineering, Qatar, December 17, 2018

- **Alnahhal**, Workshop, Avoiding PowerPointlessness: How to Create and Deliver Effective Educational Presentations, Office of faculty Instructional Development-OFID, Qatar, November 20, 2018
- **Alnahhal**, Workshop, How to use Surface Pro 4 in Teaching, Office of faculty Instructional Development-OFID, Qatar, November 20, 2018
- **Alnahhal**, Workshop, Project-Based Learning: QU Civil Engineering Pioneer Application, College of Engineering, Qatar, October 24, 2018
- **Alnahhal**, Seminar, CENG Ideas Bank, Ashgal & College of Engineering, Qatar, October 22, 2018
- **Alnahhal**, Seminar, Lean Construction "Improving the Project Delivery Process", Department of Civil Engineering, Qatar, October 4, 2018
- **Ebead, U.**, Conference Participation, 15th International Conference on Structural and Geotechnical Engineering (ICSGE15), Ain Shams University, Egypt, December 18, 2018
- **Ebead, U.**, Workshop, Bridging the Gap, Qatar University and Ashghal, Qatar, December 17, 2018
- **Ebead, U.**, Conference Participation, 5th International Conference on Concrete Repair, Rehabilitation and Retrofitting, ICCRRR 2018, University of Cape Town, South Africa, November 19, 2018 - November 21, 2018
- **Ebead, U.**, Conference Participation, The 5th International Conference on Concrete Repair, Rehabilitation and Retrofitting University of Cape Town, South Africa, November 19, 2018 - November 21, 2018
- **Ebead, U.**, Seminar, How to Survive (and Succeed) at Student Evaluations of Teaching, Office of Faculty and Instructional Development (OFID), Qatar, November 4, 2018
- **Ebead, U.**, Conference Participation, 7th International Research Symposium on PBL (IRSPBL 2018), Tsinghua University, China, October 19, 2018 - October 21, 2018
- **Ebead, U.**, Seminar, Lean Construction "Improving the Project Delivery Process", Qatar University, Qatar October 4, 2018
- **Ebead, U.**, Seminar, How to Integrate Live Audience Surveys into Power Point or Keynote Presentations to Create Interactive-Learning Experiences. Office of Faculty and Instructional Development (OFID), Qatar, September 26, 2018
- **Ebead, U.**, Conference Participation, 14th International Conference on Concrete Engineering and Technology, Kuala Lumpur, Malaysia, August 8-9, 2018. University of Malaya, Malaysia, August 8, 2018 - August 9, 2018
- **Ebead, U.**, Conference Participation, The Second European and Mediterranean Structural Engineering and Construction Conference (EURO-MED-SEC-2), Beirut, Lebanon, July 23-28, 2018. American University in Beirut, Lebanon, July 23, 2018 - July 28, 2018
- **Ebead, U.**, Seminar, Implementing Cognitive 'Nudges' to Promote Student-Centered Learning

Experiences, Office of Faculty and Instructional Development (OFID), Qatar, May 13, 2018

- **Ebead, U.**, Seminar, Finding and Using On-Line Resources to Facilitate Teaching and Learning, Office of Faculty and Instructional Development (OFID), Qatar, May 2, 2018
- **Ebead, U.**, Seminar, How to create and Deliver Interactive Lectures Office of Faculty and Instructional Development (OFID), Qatar, April 24, 2018
- **Ebead, U.**, Follow-up Sessions, Progress of NPRP project, University of Miami, United States April 8, 2018 - April 14, 2018
- **Ebead, U.**, Training, ACI 562-16 Repair Code Seminar in Doha, Qatar, American Concrete Institute, USA, Qatar, March 22, 2018
- **Ebead, U.**, Visit, Visit to Ashghal's civil and environmental labs, Ashghal, Qatar, March 13, 2018
- **Ebead, U.**, Workshop, Workshop about challenges of building and construction sector in Qatar due to blockade, CAM and CAE Department, Qatar, March 6, 2018
- **Ebead, U.**, Workshop, Problem Based Learning (PBL) - Best Practices, College of Engineering, Qatar, January 16, 2018 - January 17, 2018
- **Gunduz, M.**, Seminar, Project Based Learning PBL Dr. Usama Workshop, Qatar University, Qatar, November 24, 2018 - Present
- **Gunduz, M.**, Seminar, Team Based Learning TBL : Better than PBL?, Qatar University, Qatar, October 16, 2018 - Present
- **Gunduz, M.**, Development of a minor in project management proposal, Qatar University, Qatar, October 15, 2018 - Present
- **Gunduz, M.**, Workshop, Vital Source Workshop, Qatar University, Qatar, December 27, 2017 - Present
- **Gunduz, M.**, Seminar, Seminar:Learner-Centered Teaching (PBL in particular)Qatar University, Qatar, November 13, 2017 - Present
- **Gunduz, M.**, Training, OFID Training Advising-Scholarships, OFID, Qatar, April 27, 2017 - Present
- **Gunduz, M.**, Training, Academic Advising Training, Qatar University, Qatar, January 17, 2017 - Present
- **Gunduz, M.**, Conference Participation, Tekla Construction Conference - Pioneering the Construction Momentum, TEKLA, Qatar, December 14, 2016 - Present
- **Gunduz, M.**, Seminar, QNRF Seminar - Research Complex, QU, Qatar November 27, 2016 - Present
- **Gunduz, M.**, Seminar, OFID Seminar - Rethinking Project Management, QU, Qatar, October 31, 2016 – Present
- **Shaaban, K.** Workshop, 2019 Ethics for Florida Engineers, PDHlibrary.com, United States, November 22, 2018
- **Shaaban, K.** Workshop, Florida Laws and Rules, PDHlibrary.com, United States, November 22,

2018

- **Shaaban, K.** Workshop, Intersection Safety, PDHlibrary.com, United States, November 22, 2018
- **Shaaban, K.**, Workshop, Maintenance of Traffic Plans PDHlibrary.com United States, November 22, 2018
- **Shaaban, K.**, Workshop, Median Design, PDHlibrary.com, United States, November 22, 2018
- **Shaaban, K.**, Workshop, Signalization Design PDHlibrary.com United States, November 22, 2018
- **Shaaban, K.**, Conference Participation, Future Mobility in Qatar, PTV Group, Qatar, November 11, 2018
- **Shaaban, K.**, Seminar, Project-based Learning: QU Civil Engineering Pioneer Application, College of Engineering, Qatar, October 24, 2018
- **Shaaban, K.**, Continuing Education Program, Essential Ergonomics for Faculty (and Students), Center For Excellence in Teaching and Learning, Qatar, October 21, 2018
- **Shaaban, K.**, Workshop, Success and Failure in Publishing Papers in High Impact Journals, Center For Excellence in Teaching and Learning, Qatar, October 18, 2018
- **Shaaban, K.**, Workshop, Developing "Interactive Lectures" to Better Engage Your Students, Center For Excellence in Teaching and Learning, Qatar, October 14, 2018
- **Shaaban, K.**, Workshop, How to Integrate Live Audience Surveys into PowerPoint or Keynote Presentations to Create Interactive-Learning Experiences Center For Excellence in Teaching and Learning Qatar, September 26, 2018
- **Shaaban, K.**, Workshop, How to Integrate Live Audience Surveys into PowerPoint or Keynote Presentations to Create Interactive-Learning Experiences Center For Excellence in Teaching and Learning Qatar, September 26, 2018
- **Shaaban, K.**, Workshop, E-BOOKS@QU: Introduction and Overview, Qatar University Library, Qatar, June 14, 2018
- **Sirin, O.**, Seminar, Energizing Presentations Using "Pecha Kucha", OFID Seminar-QU, Qatar, November 26, 2018
- **Sirin, O.**, Workshop, Effective Usage of ScienceDirect, Scopus, and Scival, QU, Qatar, November 20, 2018.
- **Hisham, E.**, Workshop, Problem Based Learning, QU Qatar, January 16, 2018 - January 17, 2018

## Events Organized

**Shaaban, K.** Track chair. The 9th International Conference on Ambient Systems, Networks and Technologies. May 8-11, 2018, Porto, Portugal.

**Shaaban, K.** CVEN 461 L01 and L02. "Driver education and professional qualification – essential focus to address the main cause of road traffic accident, the human factor Conference, Doha, Qatar

October 10-11, 2018.

## Other Activities

- **Gunduz, M.**, Served as Associate Editor for ASCE Journal of Management in Engineering

### Outreach Programs

Faculty members from the Civil and Architectural Engineering Department ( Nasser Alnohmi) visited several high schools as part of outreach program. The high schools are Mohammed bin Abdulaziz Al Mana, Alshahanyih, Nasser bin Abdullah Al-Attiya, Omar Bin Al-Khatab, Tariq Bin Zeyad, Mosab Bin Omair, Doha School , Al-Wakrah, Ali Bin Jassim AlThani, Abdullah Bin Ali Almisned, Omar Bin Abulaziz , Al- Zubara, Alshamal. The main objective of the program was to visit several high schools in order to give detailed information about the Engineering Programs at Qatar University and to highlight the importance and roles of Civil Engineers to high school students in Qatar.

No.	School Name	Visited Date
1	Mohammed bin Abdulaziz Al Mana	17-09-2018
2	Alshahanyih	18-09-2018
3	Nasser bin Abdullah Al-Attiya	24-09-2018
4	Omar Bin Al-Khatab	25-09-2018
5	Tariq Bin Zeyad	26-09-2018
6	Mosab Bin Omair	01-10-2018
7	Doha School	02-10-2018
8	Al-Wakrah	03-10-2018
9	Ali Bin Jassim AlThani	09-10-2018
10	Abdullah Bin Ali Almisned	10-10-2018
11	Omar Bin Abulaziz	17-10-2018
12	Al- Zubara School	22-10-2018
13	Alshamal School	14-11-2018

### Engineering Week

Engineering week was held from the 30th April to 3rd of May 2018 in the College of Engineering Building at Qatar University. The event aimed to introduce high school students as well as first year students about the principles and fundamentals of engineering. Each department from CENG had its own booth with different models and activities.

Several models were presented in the Civil Engineering Booth which attracted a lot of students. A

model was presented to highlight the effect of vibration coming from ground rail on bridges as well on the surrounding structures. Another model showed the effect of different frequencies on a plate surface. The booth was very successful and students were interested to learn more about civil engineering topics

## Appendix-A4-Students Activities

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### Competitions & Awards

#### Dome building competition

As part of 2018 Qatar Sustainability Week, Engineers Australia Qatar Chapter, Qatar Green Building Council (QGBC) and Qatar University (QU) joined forces to organize the first ever Dome Building Competition in the country.

Qatar Sustainability Week is an initiative created by QGBC that aims to further engage the community in a wide range of sustainability-oriented activities. This initiative plays a crucial role in raising awareness among the wider community. Qatar Sustainability Week attracted more than 10,000 members of the public, attending over 100 events held across Qatar.

This event was open to all community members including professionals and students. It required teams to be creative and to construct a paper Dome with recycled newspapers, acknowledging sustainability week. The dome required an 800mm minimum diameter and capability to carry a load. Domes were assessed based on technical, functional and aesthetic categories for the awards.

The competition took place at Oxygen Park Picnic Area, Qatar Foundation on Saturday, 3rd of November 2018.



Dome building competition Nov3. 2018

## Poster competition

The department of civil and Architectural Engineering organized poster competition that took place at the Department on Wednesday, 7th of November 2018

## 2018 ACI COMPETITION

The Public Works Authority 'Ashghal' conducted a student competition in collaboration with the American Concrete Institute (ACI), Qatar Chapter and the Department of Civil and Architectural Engineering at Qatar University on 21st March 2018 at the Ashghal Research and Development Center of the Quality and Safety Department. Seven teams of students from the Department of Civil and Architectural Engineering of Qatar University have competed to win the prizes that support students' progress and enrich their practical experience in the field of engineering.

The competition included testing the impact load resistance of plain or reinforced concrete Egg Protection Device (EPD). The concrete frame subjected to shocks from a certain weight and at multiple heights before collapse and the frame is expected to protect an egg placed under this platform, whereas the egg represents the life of people who used the concrete construction that must be built ensuring the beneficiaries' protection.

The Egg Protection Device is an international competition, organized in many parts of the world and was a real opportunity for Qatar University students to showcase their knowledge and skill at an international level. The competition was supervised by Dr. Mohammed Elshafie with support from the teaching assistant Eng. Muhammad Shekaib Afzal and with help of our technicians Engs. Abdul Azeez Kilayli and Siju Joseph to ensure they comply with the competition rules. Mohammed Khairy Abdelsalam and Khalid Adam won the first price and they have been granted a fully paid trip to attend the ACI convention in USA in October 2018





### 2018 ACI Competition

- **Mohammed Abdelsalam** and **Khalid Adam** won 2018 ACI Competition.
- **Jaber Teyseer Abu-Humaid** has won Student Leadership Award

### Student Competition Awarding by Ashghal President

the Award ceremony for the winning students of the student competition was on the 7th of May 2018 at Najma laboratory. Ashghal president H.E Dr. Saad Bin Ahmed Al Muhannadi awarded the winning students.

The winners are the following students:

1. Mohamed khairy Abdelsalam
2. Khalid ELSayed Adam

### Seminars & Trainings

#### challenges of building and construction sector in Qatar due to blockade

The Department of Civil and Architectural Engineering at Qatar University collaborated with QU Center for Advanced Materials (CAM) in hosting a workshop on the Challenges of building and construction sector in Qatar due to the unjust blockade imposed on the country on 6th March 2018 in Administration Building, Qatar University





blockade event march 6, 2018

## Workshop on Advances in Civil Engineering and Potential Developments and Implementation for Qatar

The Department of Civil and Architectural Engineering organized a one-day workshop entitled Advances in Civil Engineering and potential developments and implementations for Qatar. The workshop was organized in Ashghal Tower on the 4th of April 2018.



Workshop on Advances in Civil Engineering and Potential Developments and Implementation for Qatar on April4, 2018.

## Supreme Committee 2022 Projects Event

November7, 2018 in Qatar University



Supreme Committee 2022 event Nov7,2018

## Professor Balasingam Muhunthan seminar:

Professor Balasingam Muhunthan, at Washington State University Delivered a seminar: “Shrinkage Cracking Of Soils And Cementitiously Stabilized Soils: Mechanisms And Modeling” at Qatar university on Thursday, April19, 2018:



Prof. Balasingam Muhunthan April19, 2018

## **HILTI\_Engineering Training & Internship**

Presentation at Qatar university on April 24,2018 By HILTI\_Engineering Training & Internship Topic covered: “Presentation for concrete-concrete connection with post-installed rebars”



HILTI\_Engineering Training & Internship April 24,2018

## **An introduction to engineers Australia**

Presentation about how to connect to the larges diverse professional engineering body in Australia” on Monday 24 September 2018 in Qatar university



Seminar by Engineers Australia Sep24,2018

## **Dr. Bassem Soumaya**

students at CVEN230 had an industrial lecture from Dr. Bassem Soumaya (Hochtief) who gave a lecture on the 29<sup>th</sup> April on “Deep excavations and groundwater control in Doha”.

## Dr. Elshafie inaugural presentation

the presentation on “smart infrastructure: talking tunnels, self-sensing bridges, simulation and artificial intelligence” Wednesday April 18, 2018

## Field Trips, Social and Extra-Curricular Events

### Field Trips:

- Civil and Architectural Engineering students visited the desalination and electricity generation plant located in Umm al Houl on April 17th, 2018. The Umm al Houl Power (UHP) plant will supply 136 MIGD of water and 2.52 GW of electricity to the state of Qatar or roughly 25% of the daily demand of the country. The plant will be expected to complete by the end of 2018. The students had the opportunity to get ideas about the technologies and safety issues related to the construction of the UHP plant during the site visit



Umm al Houl site visit 17-4-2018

- ASTAD structural engineering team hosted a group of 17 students from Civil engineering with a presentation, followed by a site walk, to understand the structural aspects of the QU new building and to explain various loads on a building and how they are transferred throughout the structure. They were escorted by ASTAD structural engineering staff, Tadmur construction site staff, as well as joint safety personnel on 25th April 2018.



QU SEC project on April25,2018

- The students have visited Al-Wakrah Stadium on 3rd May 2018 to see the various stages of construction of a new stadium which is getting ready for the World Cup 2022.





**Al-wakrah site visit 3-5-2018**

- visit of Al-Shamal station on Monday, November 5, 2018 involved students from Dr. Alaa class and other CAE students.



**Al shamal station on Nov5,2018**

- Civil and Architectural Engineering students visited the Extension of the Medical Building project on Oct3,2018. The students had the opportunity to see steel fixing, formwork, and concrete casting activities.
- Site Visit to the World Cup Pavilion Tuesday, Oct 16, 2018



World Cup Pavilion Oct 16, 2018

- Visit of Qatar rail on Thursday, November 1, 2018



Railways site visit on Nov1, 2018

### **Evaluation of the Civil and Architectural Engineering Laboratory at Qatar University by Ashghal**

A visit was made by a work team from the Quality and Safety Department in the Public Works Authority on 16th April 2018 to evaluate the civil engineering and architectural labs and to determine the steps required to improve the laboratories and classify them from the Authority to carry out consultancy services for state projects. The Department of Civil and Architectural Engineering is re-submitting a plan to the College to obtain the required classification and inclusion in the list of the body based on the guidance of the Quality and Safety Management Team.





**Team from the Quality and Safety Department April16,2018**

The University League is a joint collaboration between the QFA and QF which started in 2013 and supports both organizations' desire to encourage young people to play more organized football and lead a more active lifestyle. Qatar University (QU) won the University League 2018-19 title after beating Carnegie Mellon University in Qatar (CMU-Q) 6-1 in an exciting final match for the sixth consecutive time. Our graduate student Yahia Alabbasi was a player of a university football team for the season of 2018-2019.



The University League 2018