

Newsletter

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Contents

Message from Head of Department	2
5th High School Wooden Bridge Competition 2018	3
Wooden Bridge Competition 2018 Winners	4
Workshop about Challenges of Building and Construction Sector in Qatar due to Blockade	5
Workshop on Advances in Civil Engineering and Potential Developments and Implementation for Qatar	7
Outreach Programs	8
Evaluation of the Civil and Architectural Engineering Laboratory at Qatar University by Ashghal.....	8
Engineering Week.....	9
2018 ACI competition	10
Site Visits	12
Swap a book initiative	13
Students Achievements	13
Faculty Awards and Achievements	14

Message from Head of Department

Dr. Mohammed Hussein

Associate Professor, BSc (Hons) PhD (Cantab) MIIAV PGCHE FHEA



It is my pleasure to present this new newsletter of the Department of Civil and Architectural Engineering at the College of Engineering in Qatar University. The academic year 2017-2018 has witnessed more forward steps for the Department to achieve its vision in becoming a leading department in the region.

During the academic year 2017-2018, our Civil Engineering students have participated in a number of national and international competitions and received recognitions for their performance. Examples here including ACI competition, students winning enterprise award, and a student in the department winning the graduate research award. We are proud of our students and we always look forward for them to excel and to be excellent representatives of Qatar University.

Our academic staff have continued their effort in publishing high quality papers and applying to secure funding for new projects. The academic year, 2017-2018, witnessed an increase in publications by our academics and they have secured grants. Dr. Riyadh Al-Raoush has received J. James R. Croes Medal by ASCE in 2018. The Department currently has research grants of value more than 10 Million US Dollar. During the academic year 2017-2018, the Department secured funding through the National Priority Research Program (NPRP) in the area of Water resources (NPRP10-0117-170176) and 4 Undergraduate Research Experience Programs (UREP).

The Department has progressed the interaction with the industry during the academic year 2017-2018. This is characterized by the collaboration with the key industry in Qatar such as with Qatar Rail, where a new project, with a value of 650,000 QAR, was started for the Department to run undergraduate and postgraduate projects in the area of railway engineering with primary investigation on the performance of slab and ballasted tracks. The Department of Civil and Architectural Engineering also developed new collaboration with Ashghal. The collaboration has resulted in organization of student competition for senior students in the Department, the organization of workshop on advances in Civil Engineering which was hosted by Ashghal and delivered by the Department, and the visit of the quality and safety team from Ashghal to evaluate the labs of the Civil and Architectural Engineering Department. The industrial chair funded by QD-SBG commenced at the start of academic year 2017-2018.

The Department has continued its outreach activities and its interaction with the community. Faculty members from Department of Civil and Architectural Engineering has visited four schools; Al-Wakra, Omar Bin Al-Khatib, Musaab Bin Omair and Tariq Bin Zeyad as part of outreach program. Moreover, the Department has conducted a workshop in collaboration with Center for Advanced Materials in Qatar University about the challenges of building and construction sector in Qatar due to blockade.

I hope you enjoy reading the newsletter.

5th High School Wooden Bridge Competition 2018



This competition was organized for the fifth time to promote “Engineering” in general, and “Civil Engineering”, in particular, among the high school students in Qatar. Small scale wooden bridges were designed by the students of high schools and were tested on the day of the competition. The Event took place on December 12th, 2017 in Library Building at Qatar University. Sixteen Independent High Schools participated in this competition.



Wooden Bridge Competition 2018 Winners

Sr. No	School Name	Position
1	Tariq Bin Zeyad Secondary School	1 st Place
2	Jasem Bin Hamad Secondary School	2 nd Place
3	Al Shahanyih Secondary School	3 rd Place



Workshop about 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. The workshop was supported by a number of experts and researchers from Qatar University, Qatar Rail, Public Works Authority (Ashghal), Qatar Primary Materials Company and Qasab Projects Company. They exchanged their ideas and expertise and discussed the latest research projects and development in the field of construction. College of Engineering Dean, Dr. Khalifa Al Khalifa, CAM Director, Dr. Nasser Abdullah Alnuaimi, the Department Head of Civil and Architectural Engineering, Dr. Mohammed Farouk Hussein and the QU Faculty and Staff actively participated for the event. The issues related to 'Qatar Rail projects and challenges under blockade', 'Ashghal procedures after blockade', 'Operations management under blockade', 'Use of recycled materials and minor products' and 'Use of local building materials' were discussed in the workshop.



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

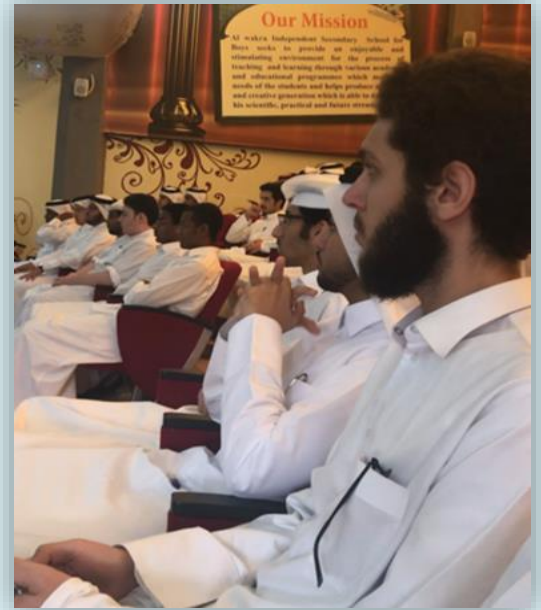


The Department of Civil and Architectural Engineering organized a one-day workshop entitled Advances in Civil Engineering and potential developments and implementations for Qatar. The workshop was organized in Ashghal Tower on the 4th of April 2018. The workshop delivered by 9 member of the academic staff of the Department of Civil and Architectural Engineering with presentations in 4 themes: Construction and Road Materials, Waste water handling and treatment, Projects Management and Safety, Structural Health monitoring and strengthening of major infrastructure. The workshop was attended by more than 30 engineers from Ashghal and other companies working with Ashghal .



Outreach Programs

Faculty members from the Civil and Architectural Engineering Department visited four schools as part of outreach program. The high schools are Al Wakra, Al Khatab, Musaab Bin Omair and Tariq Bin Zeyad. 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.



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.



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.



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.



Site Visits

Civil and Architectural Engineering students visited the desalination and electricity generation plant located in Umm al Houf on April 17th, 2018. The Umm al Houf 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.

ASTAD structural engineering team hosted the Civil engineering students during their visit to the new QU building on 25th April 2018. The students were able to understand about various loads on a building and how they are transferred throughout the structure.

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.

A site visit was organized to the Mock-up tracks at MPLA west site of Qatar Rail on the 27th of November 2017. The students learnt from the engineers in the site about the various types of railway slab tracks (tracks with discrete resilient elements, continuous resilient elements, and directly-fixed tracks) and the manufacturing process.

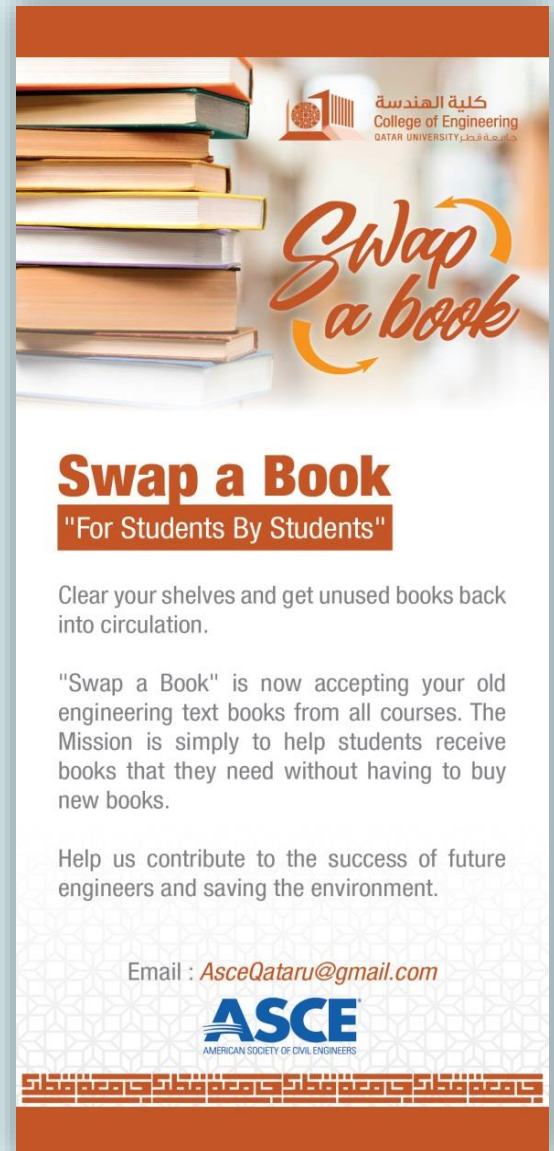


Swap a book initiative

The American Society of Civil Engineers Student Chapter has presented a new initiative in the civil engineering department called 'Swap a book'. This initiative aims to help students to acquire the books that they need for their semester free without buying new books by circulating the older books amongst them, which means that they can submit their old engineering text books from all courses in exchange for the new books.



"From Students to Students"



The poster features a stack of books on the left and the 'Swap a Book' logo on the right. The logo consists of the words 'Swap a book' in a stylized, cursive font with orange and yellow arrows forming a circular path around the text. In the top right corner, there is a logo for the College of Engineering at Qatar University, with the text 'كلية الهندسة' (College of Engineering) and 'جامعة قطر' (Qatar University) in Arabic, and 'College of Engineering' and 'QATAR UNIVERSITY' in English.

Swap a Book


"For Students By Students"

Clear your shelves and get unused books back into circulation.

"Swap a Book" is now accepting your old engineering text books from all courses. The Mission is simply to help students receive books that they need without having to buy new books.

Help us contribute to the success of future engineers and saving the environment.

Email : AsceQataru@gmail.com



ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Students Achievements

- **Eng. Osama Abdeljaber**, a PhD student won the University Graduate Research Award.
- **Mohammed Abdelsalam** and **Khalid Adam** won 2018 ACI Competition.
- **Jaber Teyseer Abu-Humaid** has won Student Leadership Award
- Our undergraduate team consisting of three members (**Jamal Hannun, Jameel Hannun & Yousef AlNuaimi**) won Qatar University Innovation & Entrepreneurship Competition, which was organized by the College of Engineering and College of Business under the Center of Entrepreneurship.

Faculty Awards and Achievements

- **Dr. Usama Ebead** has been promoted to full professor in Civil Engineering.



- **Dr. Riyadh Al-Raoush** has been announced as a joint winner of the J. James R. Croes Medal, 2018 based on the paper “Influence of Particle Morphology on 3D Kinematic Behavior and Strain Localization of Sheared Sand” which was published in the Journal of Geotechnical and Geo-environmental Engineering.



- **Dr. Mohammed Elshafie** has been voted in to join the Leadership Council for the international Society for Structural Health Monitoring and Intelligent Infrastructure (ISHMII) and appointed as the Chair for the new Young Member’s Committee within ISHMII.



- **Eng. Nasser Al-Nohmi** has completed his Master’s in Civil Engineering from Qatar University.



- **Eng. Hamad Al-Nuaimi** has completed his Master’s in Civil Engineering from the University of Arizona, USA.



- **Eng. AbdulRahman Abu-Hijeleh** has completed his Master’s in Engineering Management from Qatar University.





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