



كلية الهندسة
College of Engineering
QATAR UNIVERSITY جامعة قطر

DEPARTMENT OF CHEMICAL ENGINEERING
QATAR UNIVERSITY

CHE NEWSLETTER

October 2019



Issue 10

CHE NEWSLETTERS

Issue 10, October 2019

*Global Warming
Conference*

page 1-3

*Annual ChE Car
Competition*

page 4-5

*ChE Department
Activities*

page 6 - 17

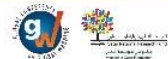
*ChE Faculty
Highlights*

page 17-20

*ChE Students
Achievements*

page 21

Department of Chemical Engineering at Qatar University Organizes the 8th GLOBAL CONFERENCE ON GLOBAL WARMING-2019 (GCGW-2019)



College of Engineering cordially invites you to attend the opening ceremony of the

8th Global Conference on Global Warming 2019

Monday 22 April 2019
9:00 am - 5:00 pm
Qatar University, Ibn Khaldoun Hall



The department of Chemical Engineering has successfully hosted the 8th GLOBAL CONFERENCE ON GLOBAL WARMING-2019 (GCGW-2019) which was held for the first time in Doha, Qatar on April 22-25, 2019.

The GCGW has been organized successfully as a leading congress in the area since 2008 and was previously held in various parts of the world. The ChE organizing team including: Dr. Rahul Bohsale, the Conference Chair and Dr(s). Fares Al Momani and Anand Kumar, Technical Chairs of the conference have worked dedicatedly to make this year's conference a more remarkable event with a larger success in terms of its technical and social content. Having the conference held in Qatar was a great opportunity to introduce distinct researchers from all over the world to the distinct Qatari hospitality and the stunning beauty of the city Doha.



8th Global Warming conference to be held in Doha this month

Doha will host the 8th Global Conference on Global Warming, organised by Qatar University with the support of the Qatar National Research Fund, from April 22-25.

The conference, where more than 170 researchers and lecturers from the world's leading universities are expected, aims to develop a better understanding of global warming by promoting research and related studies in partnership with many interested academic and industrial sectors to shape the future of this field and develop related research.

The conference will include plenary sessions and keynote lectures on energy, environment, materials, sustainable development and industrial waste, as well as the development of the gas, oil and petrochemical indus-

try, providing greater opportunities for exchange of technical information, presentation of new policies and scientific progress to promote sustainable development.

The organisers of the conference at the College of Engineering at Qatar University have confirmed that six international journals have been contracted to publish high-quality scientific papers, which will be presented to the conference, on a large scale in special editions.

Conference chair Rahul Bhosale said that this event has been successfully organised since 2008 in different parts of the world adding that the organising committee started working on a large scale to promote success, especially in terms of developing its technical and social content. – QNA



Over the following three days parallel presentation sessions and poster exhibitions were held in Intercontinental Doha – The City, West Bay. A total of two hundred researchers from both academia and industry, local and international participated with their research work in the conference covering several topics from different disciplines related to Energy, Environment, and Materials. The sessions provide a forum for the exchange of technical information, dissemination of high-quality research results, and presentation of new policies and scientific progress for enhancing sustainable development and energy security. The successful event was closed on the fourth day with a warm gala dinner where 28 best oral presentations and 12 best poster awards were presented to the most distinguished researchers.



The Department of Chemical Engineering held the Annual ChemE Car Competition for High Schools and QU Students



Aiming to encourage creativity and innovation among its students and to reach out for high school students to motivate them towards studies in chemical engineering, The Department of Chemical Engineering has been organizing the ChemE Car Competition for over four years now. This annual competition is being held by the department in collaboration with its AIChE (American Institute of Chemical Engineers) student chapter and sponsored by OryxGTL Qatar.

The competition required participants to design and race a small car that is operated through chemical processes and carrying a load of water (0-500 g) for a distance of between 15-30 meters. Teams were given information of the load amount and distance about 2 hours before the competition.

استضافتها مدرسة جاسم بن حمد الثانوية

اختتام مسابقة السيارة الكيميائية



- مدير مدرسة جاسم بن حمد الثانوية- بتكريم الفرق الفائزة والمشاركة في المسابقة التي تهدف لدعم الابتكار والإبداع العلمي لدى الكوادر القطرية وتشجيعهم على الالتحاق بالتحصينات العلمية بالجامعات.

سياق متصل قامت الجامعة ممثلة في الدكتورة/ ماجدة خريشة- رئيس قسم الهندسة الكيميائية وسعادة الشيخ/ عبدالله بن مبارك آل ثاني- مدير العلاقات العامة بشركة أوريكس جي تي إل (إراعية المسابقة) والأستاذ/ خميس مبارك المهدي

اختتمت مسابقة السيارة الكيميائية التي نظمتها كلية الهندسة جامعة قطر واشترك فيها 14 فريقا من المدارس الثانوية بدولة قطر، حيث استضافت مدرسة جاسم بن حمد الثانوية التصفيات النهائية وإعلان النتائج، وهي





The annual preparation stages for the competition includes orientation for the high school teachers on the competition requirements, safety procedures and Chemical laboratory facilities at QU.

This year event was hosted by “Jasim Bin Hamad” High School for Males. This is the first time the competition is held out of QU campus and the aim was to give more students exposure to this event and to boost the department outreach efforts. A total of 13 school teams and one university team participated in the completion on February 14, 2019. It was a full day event attended by the enthused students, their supporting supervisor, ChE department faculty members and the lab technical team. The successful event was widely covered by the local media.



The 16th Chemical Engineering Plant Design Contest



The 16th Annual Chemical Engineering Senior Design Award Contest took place on Wednesday May 1st, 2019 in Qatar University library. The senior students designed various chemical production facilities to produce some value added products such as: formaldehyde and ethylene glycol. The project design includes components of economic evaluation and environmental impact assessments. The students showcased their designs and presentation skills to the audience who attended the event including people from industry, parents and members of Qatar University.

The senior design project is an essential component of the chemical engineering curriculum that is known as the department's flagship of excellence in teaching and learning with input from our industry partners who have been supporting this design competition for the past 16 years. The industrial judging panel included Eng. Ahmed Al Mohannadi, Head of SE Gas, Refinery, Surveillance Engineering Division at Qatargas, Eng. Ahmed Salem, Process Engineer, Technical at QChem, Eng. Fatima Al-Noobi, Process Engineer at QAFCO, Eng. Jassim Al-Shammali, Head of Metering & Measurement at Qatargas, Eng. Tayseer Al-Ajez, Process Engineer at QChem, Eng. Humayan Kabir, Training Coordinator at QAFCO.

The female winning team was the Condensate Refining team including: Nafisa Masrur, Aiyman Arif, Summaya Abdelrahim and Namira Mir. On the male side the Etylene Glycol team including: Ahmed Aden, Garad Mahmoud, Ahmed Elrashedi, Mohamed Mohamed and Omar Ashour won the first place.



ChE Research Collaboration with ConocoPhillips Continues

March 3, 2019 follow up meeting

ConocoPhillips Global Water Sustainability Center (GWSC) in Doha continues to support ChE graduate students Eng. Asmaa Othman and Eng. Hania Al Batrni. On March 3, 2019 the research leaders of ConocoPhillips met with their collaborators from the department of Chemical Engineering Prof. Majeda Khraisheh, Prof. Hazim Qiblawey and Prof. Fares Al Momani to follow up on the joint research progress. The graduate students presented their work and discussed with the team leaders their recent findings.

The joint project managed by ChE HoD Prof. Majeda Khraisheh and GWSC Managing Director Dr. Samer Adham was initiated two years back and was aimed at fulfilling the objectives set by the department of Chemical Engineering to enhance the collaboration of ChE distinguished academics and lead industrial institutions in Qatar. The project investigates innovative treatment of produced water through two Masters' theses research in Environmental Engineering conducted by Eng(s). Asmaa and Hania.



A Research Team from Malaysia Visits ChE Department

A team of Chemical Engineering researchers led by Dr. Noormazlinah Binti Ahmad, a Senior Lecturer at Faculty of Chemical and Natural Resources Engineering, University Malaysia Pahang visited the department of Chemical Engineering at QU on April 10, 2019. The aim of the visit was to exchange knowledge and to explore opportunities of collaborations with ChE department experts. The research team gave a seminar on their research activities in the area of Bioprocessing and Enzymatic Engineering especially in applications of waste management and separation process. The seminar was attended by ChE faculty members and was followed by interesting discussions on the research topic.



SEMINAR



ChE Program External Reviewers

Visit to ChE Department



The department of Chemical Engineering was visited by the external reviewers Dr. Muthanna Al-Dahhan from Missouri University of Science and Technology and Dr. Peter Fedkiw from North Carolina State University during the period of March 31 – April 2, 2019. The visit program was intense with activities including: meetings with the HoD, ChE faculty member and students, visit of the department labs and attending classes. The target was to review the ChE curriculum activities at the ChE department and to investigate the teaching practices to assure the teaching qualities and standards of the department.

ChE Graduate Students Orientation

On February 13, 2019 the Department of Chemical Engineering invited the graduate students in the department to an orientation meeting. The event attended by ChE HoD and faculty members involved in graduate courses aimed at orienting the graduate students in the department on their study plans, QU rules and graduation requirements. It also aimed at allowing the students to know the research activities in the department and to match them with potential supervisors based on their research interest.



The Chemical Engineering team actively participated in the College Engineering Week event of 2019 that was held on February 18. The ChE team at the booth introduced Chemical Engineering major to the visiting students and answer their questions on the program curriculum and potential job opportunities for Chemical Engineers in the market. ChE chemical car was also exhibited in the booth and the students were given an overview about the annual competition the department organizes for ChE cars design.

ChE Department Booth in CENG Engineering Week



OUTREACH

ChE Outreach & Community Services

As part of ChE efforts to outreach and serve the local community the department participated in the National Scientific Research Competition 2019 that was held on Monday, March 11th, 2019. Two ChE faculty members participated as judges in the event: Dr. Hazim Qiblawey and Dr. Ahmed Elkhatat.

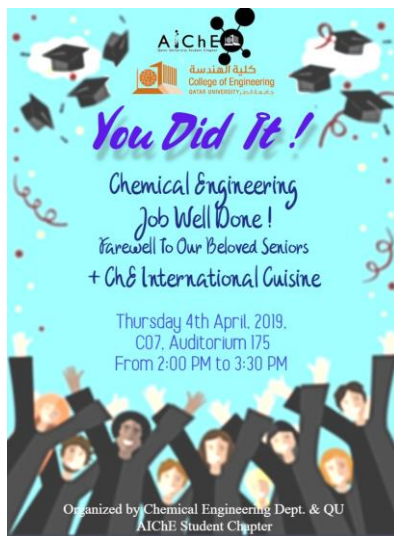
In addition ChE faculty members also participated in the Orientation Day that was organized at the on 23 April, 2019



ChE End of Academic Year Celebration



Job Well Done



On April 2019, the Department of Chemical Engineering celebrated with the students the end of the academic year 2018/2019. ChE faculty, staff and students gathered for a light early lunch where they brought traditional home-made dishes and sweets to share while having friendly chats in an atmosphere full of intimacy.

The celebration was dedicated to ChE senior students of the year and was meant to congratulate them on completing their degree in chemical engineering and to give them a warm farewell. The celebration program also included distribution of recognition certificate for ChE students who had served in various AICHE activities throughout the year and was closed by the announcement of the supervisors for the Senior Design groups of the coming year.



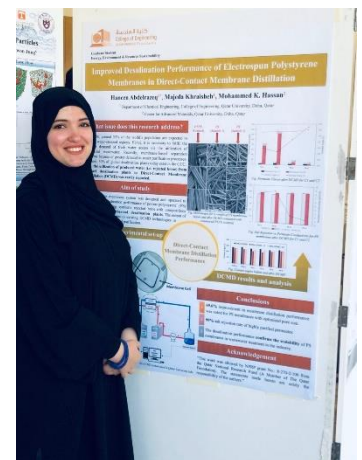
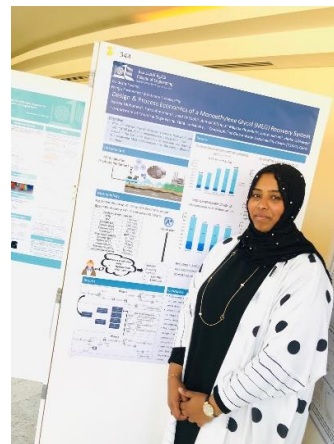
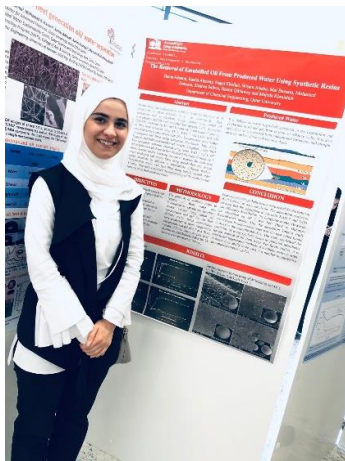
ChE Graduate Students Participate in QU Annual Research Forum



QATAR UNIVERSITY
ANNUAL RESEARCH FORUM & EXHIBITION 2019
 Research Transformation Through The Fourth Industrial Revolution
Challenges and Social Innovations
 24-23 April 2019
 9:00 am – 4:00 pm
 Qatar University, Research Complex (H10)

ChE graduate students of PhD and MSc levels have actively participated in Qatar University annual research forum and exhibition that was held on April 23 – 24, 2019 in QU Research complex. The graduate students exhibited poster on their thesis research topics and presented to the event audience their recent findings.

Qatar University Annual Research Forum and Exhibition is the meeting point for students, researchers and academics from the University's nine colleges, centers and institutes; including partners and stakeholders, to assess and review the institution's research



ChE Annual Jeopardy Game



Give the answer in a question form to win! Jeopardy Game.

The AIChE Student Chapter at QU organized the annual Jeopardy Game for chemical engineering students on March 19th, 2019. The social yet educational game consisted of two rounds. The first round included general questions related to topics such as Qatar, Sports and Movies and the second round included questions related to the chemical engineering fundamentals and chemical engineering core curriculum. AIChE has a similar event during its annual meetings and students chapters all around the world compete with each other.

Four groups competed in the game. Dr. Fadwa ElJack, AIChE chapter advisor and Eng. Hesan El Faki, student chapter co-advisor joined the student teams as members. Questions were asked and points were recorded by AIChE Officers: Rafaat Alenany, Mohamed Zamzam and Wissam AlSabaa.

The team with the highest number of points was announced the winner at the end of the second round and was presented with a trophy as a souvenir for that moment of glory.

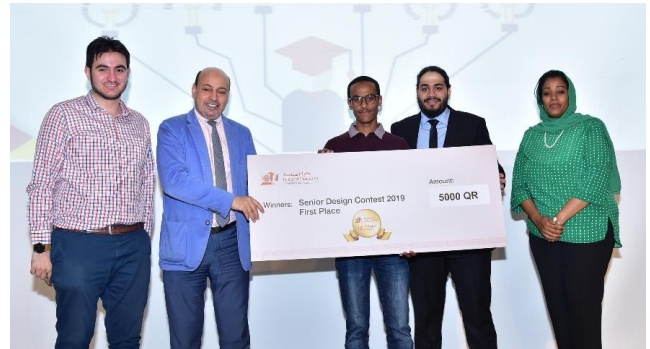


ChE Senior Design Contest Winners attend College of Engineering Recognition Ceremony

ChE senior design contests winners of 2019 were officially awarded in the College of Engineering Senior Design Contest Winners ceremony that was organized by the College of Engineering in May 2019. The winners were presented with their prizes by the former Dean of College of Engineering Dr. Abdelamgid Hammouda in the presence of ChE Senior Design Project coordinator Dr. Fadwa Eljack.



كلية الهندسة
College of Engineering
QATAR UNIVERSITY جامعة قطر



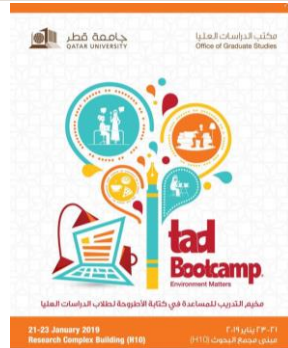
EEMP Master Thesis Defenses Supervised by ChE Faculty Members

On April 2019, ChE graduate students Asmaa Othman, Sajeda Al Saydeh, Mona Gulid, Hania Al Batrni and Zaineb Boubadi have successfully passed their environmental engineering master thesis defense. The graduate students were supervised by a team of faculty members from the department of chemical engineering. The students have been working hard throughout the past two years to complete their lab experiments and software simulations to put together the thesis work that was defended last April. The Chemical Engineering family congratulates them all on the MSc award and wishes them the best.

Student Name	Project Title	Supervisors
Sajedah AlSaydeh	Use of Alge for Removing Heavy Metal Ions from Qatari Industrial Wastewater	Dr. Fares Al Momani & Dr. Majeda Khraisheh
Mona Gulied	Application of Fertilizer Drawn Forward Osmosis System for the Treatment of Wastewater Generated in Aquaponic System	Dr. Majeda Khraisheh & Dr. Fares Al Momani
Hania Al Batrni	Novel Adsorbents for the Removal of Oil from Produced Water	Dr. Hazim Qiblawey & Dr. Majeda Khraisheh
Asmaa Othman	Design and Process Economics of a Meg Recovery System from Produced Water	Dr. Fares Al Momani & Dr. Saad Al Sobhi
Zineb Boubidi	Thermodynamic Analysis of Full Scale Baseload LNG Chain	Dr.Essa Al Musleh and Dr. Ramazan Kahraman
Yousef Elhamarnah	Thermo Rheological Characterization Of Natural Deep eutectic solvents (NADES) Used in CO2 Capture	Dr. Hazim Qiblawey & Dr. Mustafa Naser



ChE Faculty Participated in Tad BootCamp



ChE Faculty members Prof. Majeda Khraisheh (HoD) and Prof. Fares AlMomani participated in the Tad boot camp event organized by Office of Graduate Studies at Qatar University. This participation comes as a department outreach to support the graduate students in the College of Engineering. The Tad Boot Camp is program designed to centralize the various services available across campus to support thesis and dissertation research in one location. The event held on January 21 – 23, 2019 at QU research complex, aimed to support graduate students who are facing difficulties in writing their thesis/dissertation.

Congratulations to Dr. Dana Abdeen

ChE family joined in the celebration of one of its teaching assistants Eng. Dana Abdeen's PhD degree graduation on April 10th, 2019. Eng. Dana was awarded a PhD degree in Sustainable Energy from HBKU University in Qatar and officially becomes Dr. Dana. Her thesis research had the title: 'Corrosion Evaluation of Stainless Steel in CNT-water Nanofluid'.

To share the happiness of the achievement and to celebrate her success, Dr. Dana offered a cake specially made for the occasion and dedicated for ChE family. Congratulations!



Congratulations on Promotions

Proud of their great work and dedication, the chemical engineering family offers the warmest congratulations to Prof. Fares Al Momani and Dr. Anand Kumar for their recent and well deserved promotions.

Prof. Fares Almomani has been promoted to a Professor rank on December 2018. Dr. Fares joined the Department of Chemical Engineering at Qatar University as Associate Professor on August 2014. He received his Ph.D in Chemical and Environmental Engineering from Barcelona University, Spain in 2003. After his Ph.D., he became a Postdoctoral fellow in the University of Alberta in 2003 working on advanced wastewater treatment technologies. He then worked at Mutah University, Jordan from 2004-2011 as an assistant and associate professor. In 2011 Dr. Almomani moved to Canada and worked at University of Ottawa and Carleton University. Dr. Almomani's research experiences involve Advanced Oxidation Technologies, developing a novel approach to measure the kinetics of ozonation reaction, Fundamental application of biofilms technology in wastewater treatment, developing an in-line and real-time method to measure polymer concentrations in water and wastewater treatment processes, use of microalgae as advanced wastewater treatment.



Dr. Anand Kumar has been promoted to Associate Professor Rank on December 2018. He joined the Department of Chemical Engineering at Qatar University in 2012 as an assistant professor. Prior to joining Qatar University, he spent one year in MIT as a postdoctoral associate to develop microfluidic devices for continuous manufacturing. His research interest includes heterogeneous catalysis, hydrocarbon reforming, carbon dioxide conversion and hydrogen production. His research group is currently working on nanomaterials synthesis using combustion, hydrothermal and colloidal based techniques and their catalytic properties evaluation (hydrogen production, dry reforming of methane, CO₂ conversion, electrocatalytic oxygen reduction etc.).

!



He is currently working on two NPRP projects in collaboration with US institutions (University of Notre Dame, and Argonne National Lab) related to combustion synthesis and catalyst development for hydrocarbon reforming. Dr. Kumar is the recipient of several awards including the Young Researcher Award from the International Symposium on Chemical Reaction Engineering (ISCRE-21), Best poster awards from MIT Energy initiative, ISCRE-23 and 4th International Gas Processing Symposium, Travel award from AIChE's Division of Catalysis and Reaction Engineering. Dr. Kumar completed his Ph.D. and M.S in Chemical Engineering from University of Notre Dame (USA) and his B.Tech. from Indian Institute of Technology, Kharagpur.

Congratulations Prof. Fares and Dr. Anand we wish you all the success



Welcome to Professor Bassim Hameed



The department of Chemical Engineering is pleased and proud to announce that the distinguished researcher Prof. Professor Dr. Bassim Hameed has recently joined the department.

Professor Bassim H. Hameed received his Ph.D. in Chemical Engineering from the University of Salford, United Kingdom in 1992. He was a Full Professor at the School of Chemical Engineering, Universiti Sains Malaysia (USM) for the past 20 years where he led the Reaction Engineering & Adsorption (READ) research group. He was appointed as a Guest Professor at the Yunnan Minzu University, China from 2014-2017 and a visiting professor at the Universiti Teknologi Petronas (UTP), Malaysia from April 2017 to April 2019.

His research interest is Reaction Engineering and Adsorption Technology, with applications in energy and the environment. Professor Bassim was included by Clarivate Analytics in its prestigious list of Highly Cited Researchers in Engineering for five consecutive years (2014–2018). Professor Bassim was listed as one of the Most Cited Researchers for Chemical Engineering, and Environmental Science and Engineering Subjects of 2016 by the Shanghai Global Rankings of Academic Subjects. He also received the Ministry of Higher Education's Malaysia's Rising Star Award in 2016 and Malaysia's Research Star Award in 2017.

He has successfully supervised the works of 5 postdoctoral fellows, 21 Ph.D. and 26 MSc students, and more than 70 final-year research projects to completion. He has achieved a milestone of 21 research grants as a principal investigator. To date, he has published more than 280 articles in ISI-indexed journals. He has also published 100 articles in other international and national journals and proceedings. According to Google Scholar, Professor Bassim's publications have been cited more than 34,600 times. He has an author h-index of 94 and his i-10 index is 263.

Welcome Professor Bassim! The Department of Chemical Engineering is positive that your expertise in teaching and research strengths will be an asset to the research and teaching environment in the department.



Chemical Engineering HoD Participates in NACE Forum



ChE HoD Prof. Majeda Khraisheh participated in NACE Qatar Corrosion Forum that was held on January 14, 2019 in Qatar University. The event was organized by NACE Doha Qatar Section in collaboration with College of Engineering at Qatar University. Prof. Majeda participated as a guest speaker in the panel session held in the event. The session discussion give opportunity for CENG industrial corrosion experts and students to participate in an interactive session on the topic of reducing cost of corrosion in Qatar.



ChE Student Won International Competition



ChE Student **AIDana Al Yafei** was a member of QU team that participated in the international 'Destination Imagination' competition and won the first prize in the scientific challenge category.

Destination Imagination is a competition designed to inspire and equip students to become the next generation of innovators and leaders. The organization is a leader in project-based learning experiences, where students work together in teams to solve open-ended STEAM (science, technology, engineering, arts and mathematics) and service learning Challenges and then present their solutions at tournaments. Destination Imagination has impacted more than one million students. To learn more, please. Congratulations to QU team. **We are very proud of your achievement.**



ChE department sends warmest congratulations to our distinguished student **Wisam Al Saba** who was announced by the Office of the VP for Student Affairs among the winners of Student Life Awards 2018/2019. Wisam won the '**Student Clubs and Organizations Award**'. On October 23rd, 2019 Wisam was officially awarded during CENG Takreem event.

Your efforts are highly appreciated and recognized Wisam. Keep on going.

ChE Student Won Student Life Award



Department of Chemical Engineering, Qatar University, Tel: 4403 4130, Fax: 4403 4131

E-mail: che@qu.edu.qa

DEPARTMENT OF
CHEMICAL
ENGINEERING

[Qatar University, PO Box 2713, Doha, Qatar]

