



كلية الهندسة
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CHE NEWSLETTER

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**DEPARTMENT OF CHEMICAL
ENGINEERING**

QATAR UNIVERSITY

CHE NEWSLETTER



ChE Students and Faculty at GPC Conference

The 4th International Gas Processing Symposium was hosted in Doha, Qatar during October 26-27, 2014. The symposium was organized by the Gas Processing Center of Qatar University and was chaired by Dr. Mohammed Al-Marri, GPC Director and Chemical Engineering Faculty. The event this year was under the Patronage of His Excellency Dr. Mohammed Al-Sada, Minister of Energy and Industry. The symposium offers a unique environment that allows researchers from academia and experts from industry to share challenges and advances in the field of Gas Processing.

The Department of Chemical Engineering's faculty, undergraduate and graduate students showed high presence in this year's symposium. There were eight chemical engineering faculty who served as members of the **Symposium's Technical Program Committee** or as reviewers: Dr. Fadwa Eljack (technical committee chairman), Dr. Mert Atilhan, Prof. Farid Benyahia, Prof. Ibrahim Abu-Reesh, Dr. Peter van der Broeke, Dr. Aman Ullah, Dr. Mohammed Saleh, Prof. Ramazan Kahraman. Quite many chemical engineering faculty contributed to the conference with papers and oral or poster presentations and most of them attended the conference. Drs. Fadwa Eljack, Majeda Kraishah, Ramazan Kahraman, Farid Benyahia, Mert Atilhan, Simon Judd and Aman Ullah functioned as session chairs in the conference.

Prof. Simon Judd, Maersk Oil Chair in the Department of Chemical Engineering was the moderator for the **Open Panel Session** on "Industrial Wastewater". The panel was composed of principal engineers, research leads, environmental managers and academic experts.

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ChE Students and Faculty Participation at GPC Conference



The Open Panel was one of the symposium's highlights. Prof. Simon shared the summary of the panel discussion with the symposium attendees during its' closing ceremony.

The faculty also contributed to the **symposium proceedings**, with a total of 9 accepted papers in the main symposium sessions; and Dr. Anand Kumar's paper on "Modeling of Reaction Front Movement in Combustion Synthesis for Catalyst Preparation", won the 1st Place (tie) in the best poster category in the 4th International Gas Processing Symposium.

The Dean of the College of Engineering, Dr. Rashid Al-Ammari, presented the award during the symposium's closing ceremony.



This year's symposium also organized the first National Research Meeting for Students during its' second day on October 27, 2014. The focus of the National Research Meeting was to highlight the undergraduate and graduate research activities in Qatar and to expose student researchers to the conference environment. It was a successful first meeting.

In the 1st National Student Research Meeting, eleven chemical engineering undergraduate and graduate students participated. In fact the *chemical engineering students won the best oral and poster presentations in the National Research Meeting*. And they are:

- Best graduate oral presentation award went to Mr. Fahed Qureshi, currently a chemical engineering PhD student;
- Best undergraduate oral presentation was awarded to Ms. Dareen Dardor, a sophomore chemical engineering undergraduate student;
- Best student poster presentation was awarded to Ms. Mehak Jilani, a chemical engineering senior student.

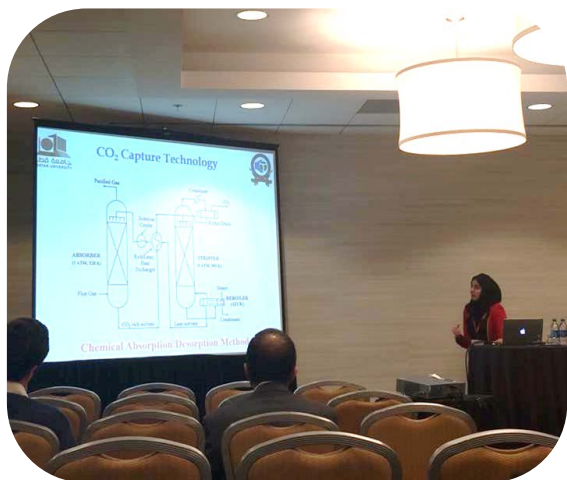


Annual Chemical Engineering Students-Faculty Gathering



The **Department of Chemical Engineering** in collaboration with the **QU AIChE Student Chapter** organized the **Annual Students-Faculty Gatherings** for the male and female students separately on Monday, September 22, 2014 and Monday, September 29, 2014, respectively. Over 50 chemical engineering students from all levels attended the two events. The HoD, Prof. Ramazan Kahraman welcomed the students, faculty members, TAs and staff members of the Department of Chemical Engineering to the new academic year with a short speech. President of the AIChE Student Chapter, Khaled Altholath then introduced the AIChE Student Chapter officers and gave a briefing about the chapter activities and how the students can contribute and participate in the chapter activities. The event was followed by an ice breaker game played collectively together by the students and the faculty members and ended with an informal question and answer session and the lunch.

ChE Student Presentations at the AIChE Annual Meeting in Atlanta-USA (November 16-21, 2014)

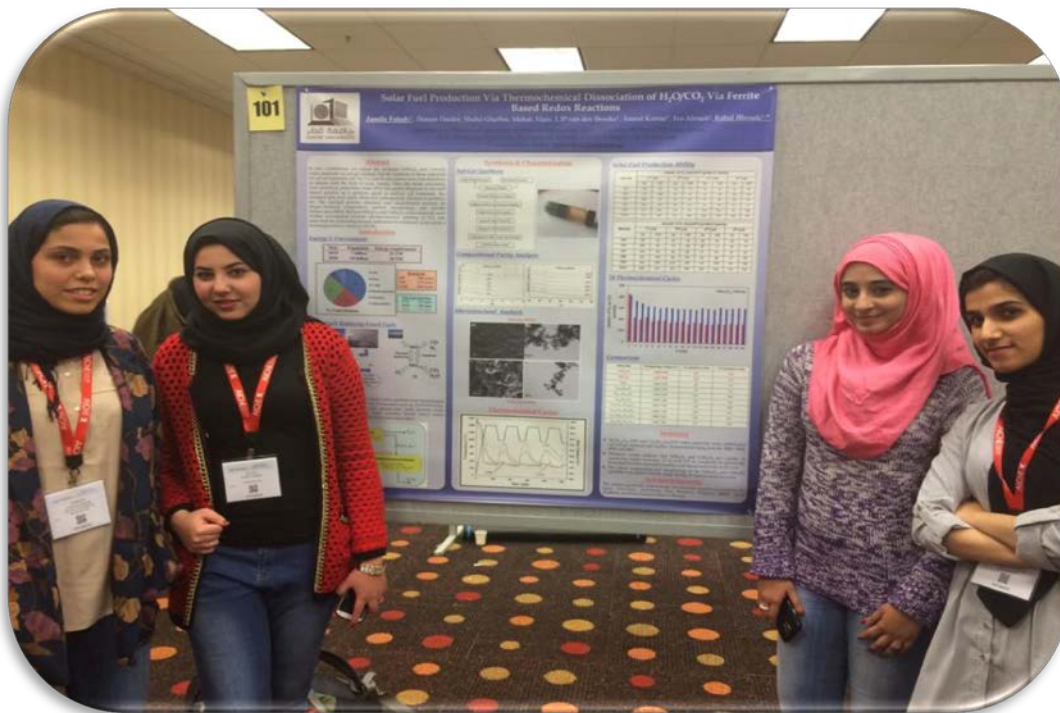


Four of our students (Dareen Dardor, Jamila Folady, Mehak Jilani and Shahd Gharbia) gave **oral and poster presentations** at the AIChE Annual Meeting in Atlanta, Georgia, USA. They represented Qatar University very well as undergraduate students presenting to audiences composed of mainly graduate students and PhD holders. **Mehak Jilani** presented the research work related to “Thermochemical dissociation of CO₂ into renewable fuels via CexZryHfzO₂ based redox reactions using concentrated solar energy” via one oral and one poster presentation.

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Shahd Gharbia presented the research work related to “CO₂ capture from fossil fuel power plant flue gas using aqueous solution of renewably prepared alkanolamine” via one oral and one poster presentation. **Jamila Folady** presented the research work related to “Solar thermochemical conversion of CO₂ into synthetic fuels via ferrite based redox reactions” via one oral and one poster presentation. **Dareen Dardor** presented the research work related to “Thermochemical storage of concentrated solar radiation via two-step iron oxide - iron sulfate cycle” via one poster presentation. This research work was supervised by Dr. Rahul Bhosale and Dr. Anand Kumar and supported by the Department of Chemical Engineering, Qatar University.



Chemical Engineering Students Awarded in the Shell's Case Study Challenge

Five chemical engineering students (Arsalan Amjad Pervaiz, Mehak Jilani, Moustafa Hussein Ali, Mariem Chamekh, Roghayeh Dejan) have **won the first place in a the Shell's case study challenge** that focused on “The role of individuals in establishing a healthy workplace environment” as part of 2014 SPE Regional University Student Program “HSE: A Way of Life” in **conjunction with the SPE Middle East Health, Safety, Environment & Sustainable Development Conference & Exhibition** (22-24 September 2014) in QNCC, Doha.

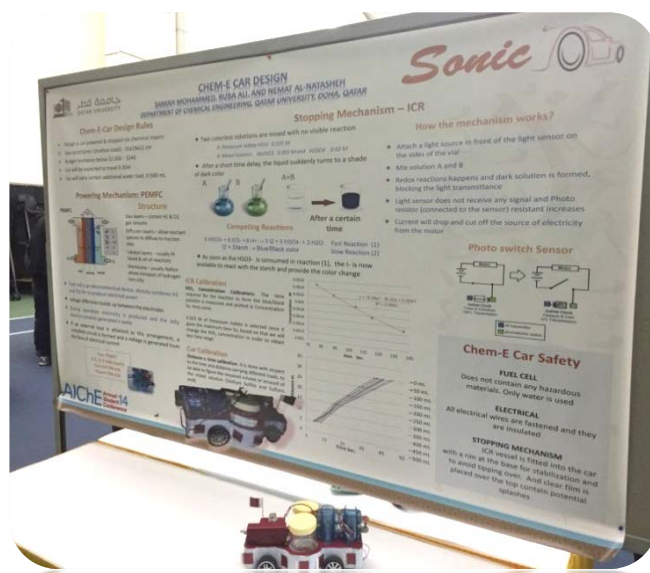
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Chemical Engineering Students Awarded in the Shell's Case Study Challenge

The objective of the competition was for the students to design a technology that will reduce the emissions of hydrocarbons from storage tanks by 80%. The students were given a fictitious land and data to work on in two weeks prior to the day of the competition. They were asked to do a short 15 minutes presentation regarding their research and findings on the competition day (Tuesday, September 23, 2014).

ChemE Car Competition at the AIChE Annual Student Meeting in Atlanta-USA





Chemical engineering students, Ruba Ali, Samah Mohammad, Fahd Moustafa Mohamed and Nemat Natsheh represented Qatar and **Qatar University in the ChemE Car Competition at the AIChE Annual Student Meeting in Atlanta, Georgia, USA on November 15, 2014.** The event took place in the campus of Georgia Tech. Our team was one of the only five teams from outside of USA. This was the first time and excellent experience for us. We have good plans for future Chem-E-Car competitions.



Chemical engineering students Mohamed Hosni Ibrahim, Nouman Nabeel Al Qwasm, Abdelrhman Izzat Abedo, Mohamed Mufid Elmistiri and Moustafa Hussein Ali had participated in the **14th Inter-College Environmental Public Speaking Competition**

during November 25-26, 2014 held at *Knowledge Village, Dubai, United Arab Emirates*. Emirates Environmental Group organized the event. This year the competition had four topics namely Who is responsible for food wastage, How can a curriculum protect our environment, Green Economy: Commitment and Responsibility and The more technology we develop, the more pollution we create.

Chemical engineering students **Mohamed Hosni Ibrahim, Nouman Nabeel Al Qwasm, Abdelrhman Izzat Abedo and Mohamed Mufid Elmistiri** participated in How can a curriculum protect our environment with Dr. Ujjal Ghosh as faculty supervisor. Our student Moustafa Hussein Ali participated in Who is responsible for food wastage in collaboration with students from other departments of College of Engineering. The students researched on their respective topic and prepared the presentation for the competition.

Students from universities of other countries such as United Arab Emirates, Oman, Bahrain and Saudi Arabia had also participated in the Environmental Public Speaking Competition. The participation had been fulfilling in a way that it gave our students excellent exposure to present their work on their chosen topic as well as to learn from presentation of others and to interact with students from universities in Gulf region.



**ChE Students
Participated in
Environmental
Public
Speaking
Competition
UAE,
November
25-26, 2014**

ChE Students Participate in SHELL IDEA 360, 2nd Season (2014-15)

Shell Idea 360 is an international competition that looks for innovative ideas that address the challenges of securing Global Water, Energy and Food for future generations. The competition targets student teams from around the globe and offers them the opportunity to develop their "Ideas" with the support from Shell experts and mentors. Through this experience, students get the opportunity to develop their leadership and business skill. In the first stage, a number of teams from QU participated, three of them are chemical engineering students. We wish our students the best of luck in moving on to the second stage and hope they are amongst the selected "Ideas"; results will be available end of January 2015.

AIChE Jeopardy Game

The AIChE Student Chapter at QU organized a Jeopardy Game for the chemical engineering students on Wednesday, December 17, 2014. It was both social and also an educational event. 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. Six groups competed and three of the groups included a faculty in their group.

Questions were asked and points were recorded by Khaled Altholath, president of the QU AIChE Student Chapter and the referee was Dr. Mert Atilhan, chapter faculty supervisor. AICHE has a similar event during its annual meetings and student chapters all around the world compete with each other.

QU team is planning to compete in 2015.



ChE Celebrations



Promotion – Mansaf and Kunafeh

The Department of Chemical Engineering family joined in the celebration of one of its member's promotion with a big feast and lots of excitement on September 21, 2014. *Dr Majeda was promoted to the rank of full professor* on the 16th of September, 2014 and offered a celebration lunch that was attended by all the chemical engineering family (faculty, staff, TA's and some students). Dr Rashid, the Dean of the College of Engineering, as well as the heads of the different departments and many other colleagues and friends from the college and other colleges attended the celebration gathering. The VPCAO, Dr. Mazen Hasna, showed his support and attended the gathering together with Dr. Nitham Hindi (Dean of the College of Business).

Celebration for Dr. Rahul's Newborn Baby



The Department of Chemical Engineering family joined in the celebration of Dr. Rahul's newborn baby on December 24, 2014. Dr. Rahul offered a celebration lunch that was attended by all the chemical engineering family (faculty, staff, TA's and students).

QU Merit Award Granted to Dr. Majeda Khraisheh

Dr. Majeda Khraisheh was announced on September 3, 2014 as a winner of the QU Merit Award which was granted to two Exemplary applications for the 2013/2014 Academic Year.



Prof. Ramazan Kahraman is Publishing a Book Chapter

Kahraman, R. and Shakoor, R. A. (in press), Teaching "Design-for-Corrosion" to Undergraduates: A Case Study of Novel Ni-B Coatings for High Wear and Corrosive Applications, In H. L. Lim (Ed.), Recent Developments in Materials Science and Corrosion Engineering Education (pp. x-x). Hershey, PA: IGI Global.

Dr. Mert Atilhan Receives Exceptional Project Award



Dr. Mert Atilhan (PI) is part of a collaborative team that has been awarded mega research fund of \$4.8 Million from the Qatar National Research Fund as part of Exceptional National Priorities Research Fund program. The proposal entitled "Design of Novel Catalysts and Processes for Carbon Dioxide (CO₂) Conversion from Micro- to Macroscale,"

will be executed in collaboration with world leading scientists from Qatar University, Texas A&M University (College Station and Qatar campuses), Northwestern University and industry experts from TOTAL Refining & Chemicals R&D both in Belgium and in Qatar centers. The project seeks to develop new catalysts and novel technologies that scale the conversion of CO₂, which could significantly impact gas processing technology and CO₂ conversion not only in Qatar, but worldwide.