

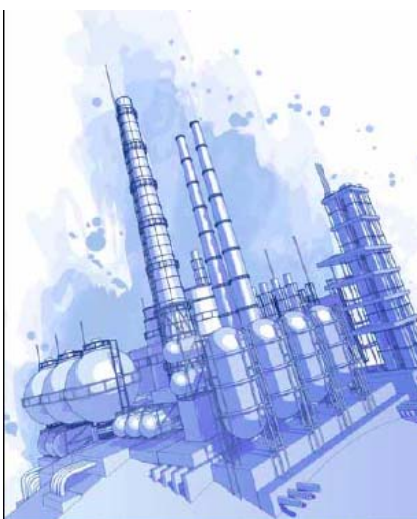
# CHE NEWSLETTER



## International Symposium on Advances in Chemical Engineering and Sciences

The Department of Chemical Engineering at Qatar University in association with the Gas Processing Center

organized an International Symposium titled "Advances in Chemical Engineering and Sciences" on 05.05.2014. The conference hosted five international speakers to showcase latest developments in chemical engineering and related sciences. The event brought together external collaborators of selected Qatar National Research Fund (QNRF), National Priorities



International Symposium on:  
Advances in Chemical  
Engineering & Sciences

### ISSUE 2, SEPTEMBER 2014

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Research Program (NPRP) projects that are ongoing in the Department of Chemical Engineering at Qatar University. The speakers presented latest findings and discoveries with the local academic and industry constituents. The talks covered a wide spectrum of topics within the field, that included bio inspired rechargeable batteries, prediction of physical properties from molecular simulations, behavior of Ionic Liquids with regards to nanostructures, modeling of absorption/desorption process of CO<sub>2</sub> infrastructures and industrial flare minimization via dynamic modeling.

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## International Symposium on Advances in Chemical Engineering & Sciences

The International panel of speakers included Prof. Jan Wook Choi from Korean Advanced Institute of Science and Technology (KAIST), Prof. Ioannis Economou from Texas A&M University in Qatar, Prof. Santiago Aparicio from University of Burgos in Spain, Mr. Robert de Kler from TNO (Netherlands), and Prof. Qiang Xu from Lamar University in the USA.

The symposium was a full day event from 8:00 am – 3:30 pm and around a hundred people attended the event throughout. Qatar University's American Institute of Chemical Engineering (AIChE) Student chapter members volunteered in organizing the event.



*In addition to the world class presentations, there was a poster display and competition in the event. Total of 20 graduate students and some undergraduate senior students had a chance to present their latest ongoing research findings during the event.*



## CENG Engineering Week: ChE Outreach

As an outreach activity, the Department of Chemical Engineering in association with the QU AIChE Student Chapter participated in the Engineering Week organized by the College of Engineering at Qatar University, April 23-28, 2014. Students from 15 High Schools in Qatar visited the event. Overview of the department, curriculum and student activities were presented. Demonstrations for students as part of Funfair activities included Chem-E cars and bio-fuel/bio-plastic experiments. A Jeopardy game was played as the chemical engineering onstage activity and it received good attention from students.



*Fun Fair Demonstration to high school Students by  
Department of Chemical Engineering*

# The 11<sup>th</sup> Chemical Engineering Design Award Contest (June '14)



The plant design competition is an annual event that is organized by the Department of Chemical Engineering. This year the 11<sup>th</sup> Plant Design Competition took place on June 18, 2014 at the Renaissance City hotel as part of the Senior Design Contest organized by the College of Engineering. In the event the senior plant design students compete for the first place prize. Each student group submits its capstone design project report to five selected Industrial experts as judges. On the day of the competition each group gives a 20 minute presentation to the judges that are followed by 5-10 minutes of Question and Answer Session. The team with the best presentation and overall technical report is awarded the Qatar Gas Prize. The students are given a symbolic gift and monetary prize at Qatar Gas headquarters. The 2014 winners were the "Sammonia" group that is made up of Noura Dawass, Fatema Khoddady and Al-Reem AlGaal. The groups which took the second and third place respectively are "Technik" group composed of Maryam Al-Abdulla, Elham Salih and Kawathar Takhty and "GD Consulting" group composed of Ruba Ali, Nur Elmasri, Samah Mohamed and Waad Derar.

This event is very popular with the students and industry partners. It is an opportunity for graduating students to showcase their engineering and professional skills to the industrial sector.



Student supporting companies





## Chemical Engineering Students at 14<sup>th</sup> World XTL Summit: May 19 – 21, 2014 in UK

Three Chemical Engineering Honor students, Noura Dawas, Shahd Samir Gharbia and Mohammad Al Esawi, were sponsored by Qatar University and ORYX GTL to attend the 14<sup>th</sup> World XTL Summit at Royal Garden Hotel, London, UK, May 19-21, 2014. XTL (XTL stands for “gas, coal, or biomass” to liquids) is a major event that allows the most important and influential people and companies related to the “Gas (GTL), Coal (CTL), Biomass (BTL)- to - liquids” industry to meet and discuss the most advanced new innovations, technologies, projects in the XTL industry. It is also a great opportunity to have a glimpse to the challenges and opportunities available in the up and down streams of such billion-dollar industries.



### QU AICHe STUDENT CHAPTER SPRING '14 GATHERING

AICHe Student Chapter at Qatar University organized their first event in Spring 2014 semester on February 19, 2014. More than 60 chemical engineering students from all levels attended the event. President of the QU AICHe Student Chapter, Khaled Altholath, welcomed all the students, faculty members, TAs and staff members of the Department of Chemical Engineering to the new semester in his short speech. The AICHe Student Chapter officers were introduced and the new members were acknowledged. The event was followed by an ice breaker game played collectively together by the students and the faculty members and ended with lunch.

## CHE STUDENT ACTIVITIES



*Two chemical engineering students, Mr. Khaled Altholoth and Mr. Mohamed Hisham Naagy, participated and gave talks at TEDxQatarUniversity 2014.*

TEDxQU is an event that gathers inspiring students and faculty from the local community of Qatar University to share their ideas and experiences with a vision of inspiring curiosity, igniting new ideas, empowering young leaders.

TED (Technology, Entertainment, Design) is a nonprofit organization and x stands for independently organized TED events. The event took place in the Opera House at Katara on May 2, 2014. Mr Khaled's speech was a comedy speech on marriage and youth. The talk of Mr. Mohamed

Hisham was about "Sound of Underground" which is a new type of music that expresses the voice and the feelings of the people in a different way.

## STUDENT RECOGNITION



Two Chemical Engineering students, Ms. Noura Dawass and Mr. Moustafa Hussein Ali, have won the ORYX-GTL Environmental Competition. The competition is among many activities took place in the "Qatar Petroleum Environmental Fair" that was held during April 23-26, 2014 in the Qatar National Convention Centre in Doha. This year's ORYX-GTL theme was "Use of Water in the Oil and Gas Industry". Noura won the competition by submitting a poster that demonstrates the concept. The poster title was "Utilizing Industrial Wastewater to Mitigate Qatar Water Challenge". The work was supervised by Prof. Hazim Qiblawey. Moustafa has participated with a poster about the GTL process and its title was "Gas-to-Liquid (GTL) Technology and its Thermodynamic Database". The poster described - gas to liquid - process from beginning to end.



## CHE STUDENTS PLANT SITE VISIT: RAS ABU FONTAS

Students of the Department of Chemical Engineering visited Ras Abu Fontas Power and Desalination Plant on May 8, 2014. The plant is owned and operated by Qatar Electricity and Water Company (QEWC) which is the main supplier of electricity and desalinated water in Qatar. The students were welcomed and introduced to the desalination plant by the company. They got the opportunity to visit the control room of the plant and the massive multi stage flash desalination unit. The engineers of QEWC guided the tour. The students got this rare opportunity as part of their chemical engineering technical elective course, CHME 445 Desalination. The course is taught by Prof. Hazim Qiblawey.



## Student Lectures by Guest Speakers on Water Quality Management



*Dr. Nawal Al-Suna, an expert in water networks in Qatar General Corporation for Electricity and Water-KAHRAMAA, delivered a lecture titled "Water Quality Management Improvement Through Change of Disinfectant Used" on May 10, 2014 to our senior students.*

A second lecture titled "Overview on KAHRAMAA Water Quality Management System and Continuous Improvement Policy" was delivered on May 12, 2014 by a *Chemical Engineering Alumni Eng. AbdulRahman Al-Namaa. Eng. AbdulRahman* is the Head of Health, Safety and Environment Department at Qatar General Corporation for Electricity and Water-KAHRAMAA. He was among the first batch graduated from the department back in 1985.



These lectures come as learning activities in the desalination course (CHME 445) offered by the department in Spring 2014. The instructor of the course is Prof Hazim Qiblawey.



## CHEMICAL ENGINEERING INDUSTRIAL ADVISORY BOARD MEETING – SHERATON (FEB '14)

Chemical Engineering Industrial Advisory Board (ChE-IAB) meeting took place on February 27, 2014. The attendance was excellent: 9 out of 11 industrial members joined the meeting along with 9 faculty members from the department. The meeting was very fruitful and resulted in advices for quality assurance and improvement of the chemical engineering programs to be considered by the department. The meeting started at 12:00 pm and ended with lunch at 2:30 pm.

The ChE department appreciates the industrial support and thanks its IAB members: Mr. Dean King, Qatargas Engineering Manager, Mr. Attala Ersan, QVC Head of Training and Development, Mr. Micahel Zeglin, Qchem Deputy General Manager, Dr. Mabrouk Ouederni, QAPCO Head of Research and Development, Eng. Sager Al-Shahwani, QP Head of Operations Research, Mr. Shane Watson, Maersk Oil Head of Facilities and Development Studies, Mr. Rob Overtoom, Qatar Shell GTL Technology Manager, Mr. Anton Parr, Oryx GTL Lead Buisness Analyst, Buisness Development and Mr. Yousef Al-Jaber, Total Head of CSR and Institutional Affairs.

### Retreat: ChE Curriculum Committee (May '14)

ChE Curriculum Committee had a retreat on May 15, 2014 to review the status of the ABET assessments in the CHME Program, discuss the improvement actions implemented and related recommendations and continue on writing the Self Study Report for the next ABET visit. The retreat took place on campus at Qatar University. Other ChE faculty and staff joined for lunch afterwards.



*Dr. Mert Atilhan, Dr. Fadwa Eljack, Dr. Aman Ullah, Prof. Ramazan Kahraman, Prof. Farid Benyahia and Prof. Shaheen Al-Muhtaseb (starting from left of photo)*



## ChE Traditional Cuisine (February '14)

The Department of Chemical Engineering and the AIChE Student Chapter hosted an event we call "ChE Traditional Cuisine" on March 12, 2014. It seems to be a popular event amongst the students and the faculty and this is the second year we have it. It is an event we created with the purpose of getting student and faculty to interact. We get to see some of our newest students and we share a little bit of our culture. It's truly amazing to see the number of countries and cultures that represent who we are as a department. We encourage everyone to bring a dish from their country and some choose to dress up as well.





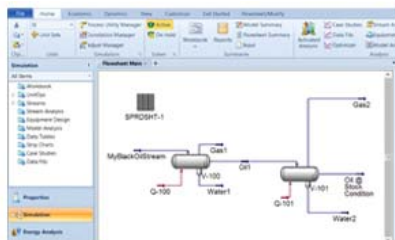
## Workshop : Hazardous and Regulated Waste Management



Chemical engineering laboratory staff and researchers received an important safety training “Introduction to Hazardous and Regulated Waste Management” organized by the Environmental and Safety Management Office at Qatar University on May 13, 2014. The purpose of the workshop was to provide the laboratory personnel with the tools needed to properly manage hazardous waste. It was a very useful chemical waste management activity for our department. The workshop

included three modules: Defining hazardous materials, Segregation and isolation of health care waste and Handling and emergency procedures.

### Hysys Simulation Workshop



**Model and optimize any hydrocarbon process.**



The Department of Chemical Engineering in collaboration with the AIChE Student Chapter at Qatar University conducted a workshop on the use of the industrial simulation software “Aspen HYSYS” for chemical engineering students on March 13, 2014. Eng. Shaden Daghsh, a teaching assistant in the department, delivered the workshop. It was designed for the 2<sup>nd</sup> and 3<sup>rd</sup> year students to introduce them to the concept of process simulation and its importance in industry. The workshop agenda included introduction to Hysys, selecting components, proper selection of fluid packages, inserting reactions, streams and equipment and a case study simulation. The workshop was interactive as students were working on the software during the workshop following the instructions step by step and asking questions when needed.



**Professor Ramazan Kahraman was an invited speaker at the 3<sup>rd</sup> Annual Corrosion Management Summit** organized by Fleming Gulf, 28-30 April 2014, Hilton Doha, Qatar. He was also member of a discussion panel representing academia on the discussion topic “Need for corrosion knowledge management as per organizational objectives”. The summit witnessed experts related to corrosion management to present unpublished research work, new technology developments, case

studies and propose solutions to current challenges and problems. It was an opportunity to discuss challenges in corrosion and network with corrosion experts from the Middle East and rest of the world.

**Prof. Farid delivered a workshop at the 2014 ABET symposium in Pittsburgh, USA** on April 2014. The Chemical Engineering Design experience at Qatar University was shared globally with attendees from the USA and several other parts of the world. The workshop under “creative technical education” was well received with full details on team delivery, team learning and ABET assessment compliance.



On March 3<sup>rd</sup>, 2014, **Prof. Farid delivered a presentation at the 4<sup>th</sup> International Engineering Design Conference (IEDEC)** affiliated to the IEEE in Santa Clara, USA, The Chemical Engineering Design Instruction in the form of role play was explained to an engaged audience that included several managers from the Silicon Valley.

**Certificate of Appreciation Granted to Dr. Hazim Qiblawey** for his contribution to the 2<sup>nd</sup> Arab Water Conference and Exhibition, Ritz Carlton, Doha, May 27-29, 2014. He was in the Scientific Committee of the conference and chaired two sessions.



# Faculty Highlights



**Dr. Majeda Khraisheh was promoted to the status “Fellow of IChemE/ICChemE”** (Fellow of the Institute of Chemical Engineers, UK) on May 21<sup>st</sup>, 2014

Fellowship of the IChemE is the highest professional membership rank an engineer can achieve in the UK. Dr. Majeda said “Being a fellow is a demonstration of the importance of career development in any engineer’s profession and is a millstone in professional recognition on an international stage”.

**Dr. Mert Atilhan delivers short courses** on Theoretical and Experimental Evaluation of Natural Gas Properties and **Dr. Fadwa Eljack is an invited Keynote speaker** at the Shale Gas Monetization Workshop organized by the Gas and Research Initiative (GFRI) that took place in La Torreta, USA on March 26 - 28, 2014. This workshop highlights the importance of Qatar’s successful experience in natural gas utilization and the lessons to be learned. The initiative brought together experts from industry, government and academia to discuss lessons learned from Qatar’s experience in natural gas monetization.

**Gas and Fuels Research Initiative**

TEES | AP | TEXAS A&M UNIVERSITY | TEXAS A&M UNIVERSITY OF QATAR

Short Course and Workshop on  
**Shale Gas Monetization**

Potential Opportunities in the US  
and Lessons Learned from the Qatari  
Experience with Natural Gas

March 26 - 28, 2014  
La Torretta Lake Resort and Spa  
Montgomery - Texas

Sponsors  



## Appreciation: Dr. Ahmed AlKhatat for contribution to Stars of Science TV Program



Abdullah Bin Ali Al Thani, President of Hamad Bin Khalifa University recognizes Dr. Ahmed Alkhatat for his invaluable contribution to the stars of Science TV Program.



د. أحمد محمد رضا الخطاط

Dr. Alkhatat also signed a contract with THAQafa publishing & distribution, in UAE to publish his book "Modern Spectrophotometry Instruments and Their Application in the Analytical Chemistry"

Contact: Department of Chemical Engineering, Tel: 4403 4130, Fax: 4403 4131, E-mail: che@qu.edu.qa

DEPARTMENT OF  
CHEMICAL ENGINEERING

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