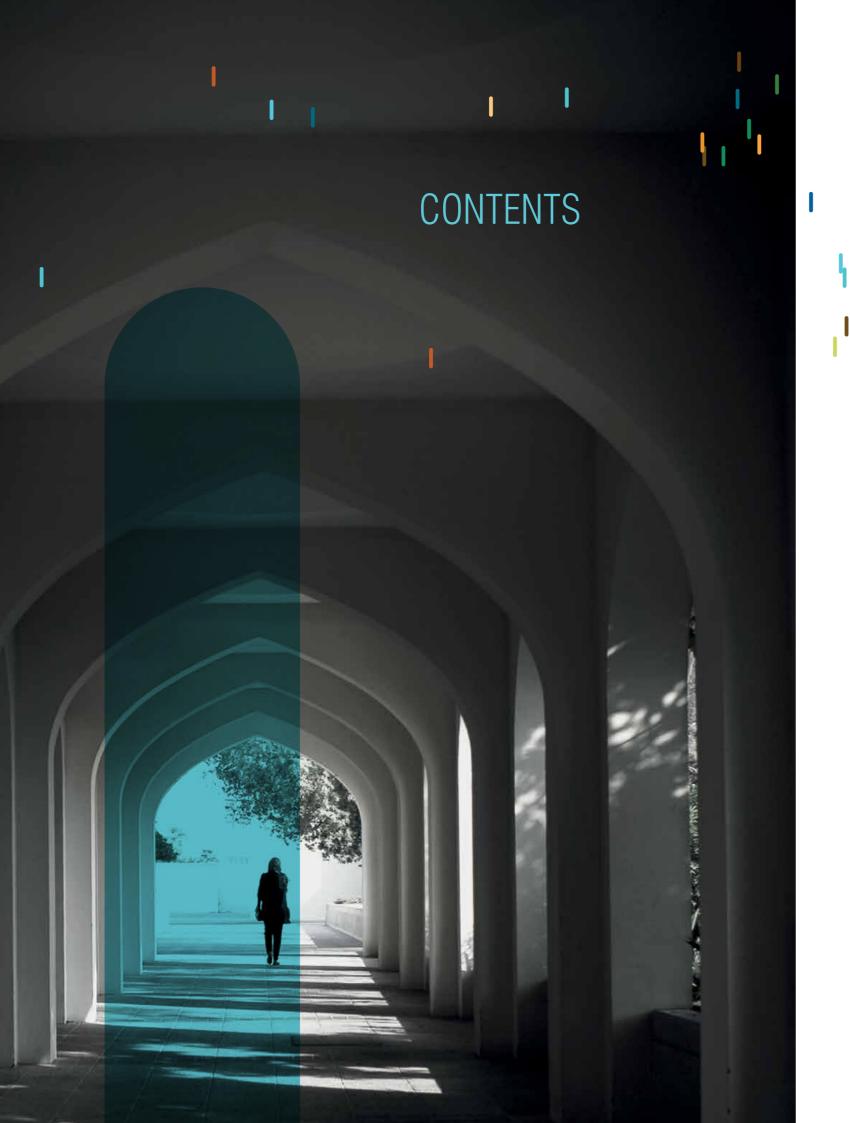


# ADVANCING HIGH-QUALITY RESEARCH

#### **PREFACE**

Qatar University places research and community service at the heart of its institutional development plans. They form part of the organization's goals and objective to be a model university in the region and produce graduates well-prepared to become the country's next leaders. Its commitment in this regard is reflected in a myriad of activities and approaches aimed at advancing society's needs and aspirations.



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It is my pleasure to share with you the Annual Report 2014-2015, the first one in my role as QU president. The Annual Report has become a significant reference of institutional memory on plans, goals and accomplishments by our colleges, research centers, administrative units and the institution as a whole, touching on various themes and messages.

This year's report focuses on research – a topic of high importance throughout the organization. It also touches on community outreach, which goes hand in hand with our research efforts and is reflected in the close bond we share with the Qatari society and our position as a key partner in addressing its needs and aspirations.

The priority of place that research holds within our academic landscape cannot be overstated. QU has successfully embedded a vibrant culture of research within its teaching and learning environment; this has led to a number of successes and accomplishments, and a growing reputation for research quality and excellence. Qatar University is becoming one of the fastest-growing institutions for research in the region, showing a compound annual growth rate of 36.45%. The

budget for current active grants and contracts is US\$ 141.5 million of which US\$ 48 million, was awarded in 2015 alone

This is further reflected in our ambitious research roadmap which was launched in 2014, and which tackles issues of critical importance to the country's social, economic and cultural progress in line with the goals stated in QNV 2030, QNDS 2011-2016 and the National Research Strategy. Added to this are a state-of-the-art research complex and 14 research centers of excellence which address national priority issues such as road safety, gas processing, social and economic survey studies, and marine conservation, to name a few.

During this academic year, we developed a White Paper on research that stands as the guiding principle for organizing, facilitating and significantly strengthening the research culture within the university in relation to its colleges, programs and research centers. It will serve as a foundation and guideline for implementing the organization's roadmap, thus steering QU into a new era of research innovation and collaboration.

#### PRESIDENT'S NOTE

Through its research culture, QU is creating an exciting and inspiring environment of discovery and innovation to encourage students' participation in the learning experience and their engagement in finding solutions to everyday challenges. Similarly, it opens up opportunities for faculty collaboration with colleagues at academic institutions at home and abroad. To date, research collaboration activities are in process with over 140 institutions around the world.

Research is a key component of our graduate programs. The organization has developed an impressive portfolio of 31 graduate programs which comprise 23 Masters, 4 PhDs and 4 Diplomas that include 5 additions in this academic year – a PhD in Gulf Studies at the College of Arts & Sciences, two LLM programs in Private Law and Public Law at the College of Law, a Master's program in Curriculum, Instruction and Assessment at the College of Education, and an MSc in Marketing at the College of Business & Economics. Many of the graduate programs are first-of-their-kind in Qatar, and are especially designed to respond to market needs and national ambitions towards fostering a knowledge-based economy.

I will take this opportunity to draw attention to the first-ever PhD degrees awarded in the country to one male and one female student during the graduation ceremonies at the end of the academic year. The students, from the College of Engineering in Civil Engineering and Computer Science & Engineering respectively, made us all very proud. This was a milestone for QU and especially the College that has grown by leaps and bounds and which is now positioned as one of the best engineering colleges in the region and the producer of the largest number of graduates to the country's industry sector.

Undergraduate research is also encouraged through the Undergraduate Research Experience Program under Qatar National Research Fund, internal student grants, college-led research fairs, and curiosity-driven learning.

QU research also benefits from the expertise of a number of professorial Chairs at several colleges and centers, boosting graduate student research and faculty collaboration and exchanges.

Community outreach is a significant aspect of QU's ethos. The organization has, over the years, become an integral part of the fabric of Qatari society, and is well-regarded for its legacy as the first national higher education institution in the country and the standard-bearer of Qatari, Arab and Islamic heritage, identity, culture, language and values. It is also the contributor of the largest number of graduates to Qatar's burgeoning labor market; these graduates constitute the candidates of preference for 73% of employers in Qatar, based on our most recent survey.

QU sees itself as a reflection of the country's national spirit as well as its diversity and multi-cultural aspect. In our Strategic Plan 2009-2013, we placed community service alongside research as a key priority area in accordance with the goals outlined in our mission and vision. Like research, it forms part of the learning environment, and enhances the students' academic and extra-curricular life.

Our commitment to the community can be seen in the myriad of initiatives we have implemented over the years and that are a constant in the academic as well as the wider institutional landscape. These include high school programs, consultancy support services, alumni engagement, Qatarization, professional development programs, health and safety campaigns, and student volunteerism and civic responsibility to name a few.

In the ensuing pages, you will find a wealth of information attesting to the hard work and dedication of QU colleges, research centers, and units in their research and community outreach endeavors. It is important to note that in these endeavors, we have had the consistent support of our partners across the spectrum of the public and private sectors, for which we are deeply appreciative.

As we prepare to enter another academic year, we look forward to welcoming new students and faculty, implementing new academic programs, strengthening our research efforts, and further enhancing our relationship with the wider community. We have had many accomplishments and are keeping pace with our goals and objectives – however, there is much to be accomplished as we continue our development efforts and our commitment to contributing to the country's progress..

### COLLEGE OF ARTS & SCIENCES (CAS)

The college achieved notable success during the academic year 2014-15 in terms of fulfilling its mandate of promoting interdisciplinary research derived from harnessing synergies that connect the multiple disciplines that exist within the College. With focus being given on how to produce research which fits in with the wider needs of the society and with the needs of industrial/corporate partners. CAS was able to make strong progress in this area during 2014-15.

The College's success in achieving grants can be seen in a significant increase from the last academic year 2013-14 when the cumulative funding stood at QR 51.793.372 (\$14,189,965); this excluded NPRP projects funded for CAS faculty research but were counted under the research centers or other QU units. This year's total funding was up 17% from the QR 44,378,114 received in the previous year.

Research achievement during the year was also reflected in the faculty's increased published output and conference presentations, successes in obtaining grants and their active participation in interdisciplinary research projects. Internally, faculty were awarded 30 startup grants totaling over QR 1 million, in addition to 19 larger QU grants amounting to QR 2.3 million. The major source of external funding was secured through the Qatar National Research Fund (QNRF) by which CAS faculty were awarded 16 grants under the National Priorities Research Program (NPRP) which totaled an impressive QR 44,932,621. Of these grants, 5 were awarded to the Department of Biological and Environmental Sciences, the largest share of funded NPRP projects this year.

CAS faculty authored and co-authored a large number of publications during academic year 2014-2015. Based on information received from departmental reports, CAS faculty published 165 books, 391 papers and made 175 professional presentations at international conferences. The number of publications by faculty was higher than last year's figures, indicating a sustained effort to publish internationally.

Among these publications were some of the leading academic journals such as The Lancet where a faculty co-authored paper "Global, regional and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013", had an impact factor of 39.207; Science Translational Medicine in which a facultyauthored article "The gut microbiota influences blood-brain barrier permeability in mice" carried an impact factor of 14.414; and Nature Communications that published a faculty co-authored article "Opposing calcium dependent signaling pathways control skeletal muscle differentiation by regulating a chromatin remodeling enzyme" that carried an impact

Student participation in UREP grants under NPRP and in the internal Student Grants category increased dramatically during the year with a total of 99 projects awarded and 226 students funded. Students from 6 departments received UREP grants; students from other departments and programs have also participated in research under student grants. The Department of Biological & Environmental Sciences had the highest number of student grants among all CAS departments followed by the Department of Health Sciences. As well as direct involvement in student grants, a number of students also benefited from participation in research work funded under NPRP and QU grants. This research experience has proved immensely beneficial to students as it provides them with opportunities to develop research and critical thinking skills that prepare them as wellrounded students able to better compete in the job market.

Student research at CAS is further enhanced through the college's 6 graduate programs in which 142 graduate students are enrolled. The college also offered 30 graduate assistantships. It is through its graduate programs that research synergy is flourishing between faculty research and teaching and student learning. Further, it is through harnessing graduate studies that the college is proving its ability to foster a culture of research excellence and productivity.

Active learning and learning-by-doing initiatives are another way in which CAS, like other QU colleges, boost its students' curiosity-driven learning and critical thinking skills, leading to their heightened employability within the labor market. Through its academic programs, the college collaborated with a number of institutions to provide its students with internship and sponsorship opportunities during Fall 2014 and Spring 2015 - these included Hamad Medical Cooperation, National Organization For Combat of Human Trafficking, The Social Rehabilitation Center (Al Aween), Family Consulting Center, Qatar Foundation for Social Protection and Rehabilitation, Qatar Foundation for Elderly People Care (IHSAN). Supreme Education Council. Shafallah Center for Children with Special Needs, SEIB insurance company, Ooredoo, Maersk Oil, Ministry of Youth and Sports. Al Jazeera. Q-Media. Al-Ragmi TV. and others. A collaboration with Anti-Doping Lab Qatar provided students with the opportunity to participate in ADLQ's Fifth Symposium on Global Trends in Anti-Doping Research.

The College was supported by the Career Services Center during the year with 10 workshops for senior students on CVwriting and successful job interviewing.

During AY 2014-2015, CAS recorded a high level of success for CAS faculty members and students who participated in many conferences, workshops and competitions at the national and international level.

At the college level, 3 faculty were honored with the Research Excellence Award for the arts and sciences. The award competition was introduced in line with the objective in QNV 2030 to recognize and honor college faculty who excel

in research that benefits society, builds research capacity, and raises the research profile and name recognition of his/her organization.

Students showcased their research projects and competed in the Student Research Poster Award Competition during the CAS Annual Research Day. Nine students from the Department of International Affairs won first place in the Arts category for their poster entitled "Criminalizing Domestic Violence in Qatar", while 4 students from the Department of Social Sciences won second place for their poster entitled "The Qatari Validation of The Connors' Adult ADHD Rating Scales".

In the Sciences category, a female student from the Department of Biological and Environmental Sciences won first place for her poster entitled "Detoxification of mercury pollutant extracted from spent fluorescent lamps by bacterial strains", while her male counterpart from the Department won second place for his poster entitled "Remotely Sensed Empirical Modeling of Bathymetry in the East Coast of

For the postgraduate category, a student from the Gulf Studies Program won first place in the Arts category for the poster titled "Attitudinal Change towards Traditional Attire among Qatari Women over One Generation", and one from the Department of Health Sciences won first place in the Sciences category for her poster entitled "Investigating Molecular Pathways of ROS-induced Proinflammatory Senescence In Preadipocytes".

In addition to the college competitions, students and faculty were successful in other national and international awards during the academic year 2014-15.

Inter-disciplinary research flourished among the college's three research centers - Gulf Studies Center (GSC), Center for Humanities and Social Sciences (CHSS) and Center for ainable Development (CSD). uring the year, the centers achieved notable success in terms of enhancing interdisciplinary research as well as engaging with society and external partners. They were also successful in securing 4 NPRP projects out of the 16 awarded to CAS for this academic year. Information on their work and achievements in AY 2014-15 is highlighted later under separate headings within the Report.



# COLLEGE OF BUSINESS AND ECONOMICS (CBE)

During the academic year 2014-2015, the College of Business and Economics (CBE) recorded a number of achievements, which served to advance its profile of excellence in the field of business and finance in Qatar. This included the launch of an MSc in Marketing, establishment of a Finance Endowment Chair position, an MOU with Vodafone Qatar and one with Qatar Stock Exchange, faculty and student research successes, and future plans for a collaborative initiative with the Qatar Chamber of Commerce.

The MSc program, the first of its kind in Qatar, is designed to provide students with an advanced theoretical foundation in marketing and to develop their research competencies in the field including techniques of data collection and analysis. A distinctive feature of the program is the student/corporate mentor activity in which classroom knowledge is applied through practical field experience at a diverse range of companies in the business sector.

The 2-year program offers a focus area in sports marketing as it aims to align with national ambitions to advance a vibrant sports culture and the positioning of Qatar as a key international sports destination, the foremost example of which is the hosting of the FIFA World Cup 2022.

The endowed chair, funded by Commercial Bank Qatar, will serve to bring added focus to the College's efforts to address matters of finance and financial leadership in Qatar, and within the global financial system. The Chair's activities will also advance opportunities for CBE undergraduate and graduate students to match their classroom knowledge with practical workplace experiences.

The MOU signed with Vodafone Qatar in April 2015 includes a financial contribution from the company to support the college's Center for Entrepreneurship, as well as support to CBE students and faculty, especially in research. Similarly, the MOU with Qatar Stock Exchange will serve to increase students' engagement in scientific research, and facilitate their visits to the Stock Exchange where they will gain hands-on knowledge of the trading floor and strategies. The MOU will also provide opportunities for students' future careers at the

Exchange after graduation. Additionally, the MOU will engender CBE faculty engagement on critical issues related to Qatar's economy and its position in the global financial system.

The college was successful in securing three grants among 41 submissions in the NPRP 8th cycle under QNRF, representing a success rate of 7.3%. The awarded projects included "The development and enactment of trust within Hawala Networks in the GCC region"; "Soaring international food prices and political upheaval in fragile food exporting countries: Implications for food security resilience in Qatar"; and "Expected stock returns and asset pricing. In two of the projects, CBE faculty served as lead principal investigators (LPI) and in the third, as co-lead principal investigator (Co-LPI).

Other faculty research successes included 38 out of 47 achieving internal grants, publishing 106 papers with several in peer-reviewed journals which represent 1 paper per faculty member. CBE faculty also attended and presented at 145 conferences.

As a result of UREP/QNRF grants, seven undergraduate students presented their research output at international conferences. Graduate students were very active in research during the academic year with 40 participating in the college's research poster showcase in which they addressed research questions related to Qatar's economy, applying advanced quantitative and qualitative tools to a range of sectors including health, sport, banking, and the petroleum industry.

In December 2014, student projects dealing with issues such as corporate social responsibility, QU parking concerns, and various management styles won first, second and third place respectively among eight submissions in a competition organized by CBE in collaboration with Vodafone Qatar on December 23.

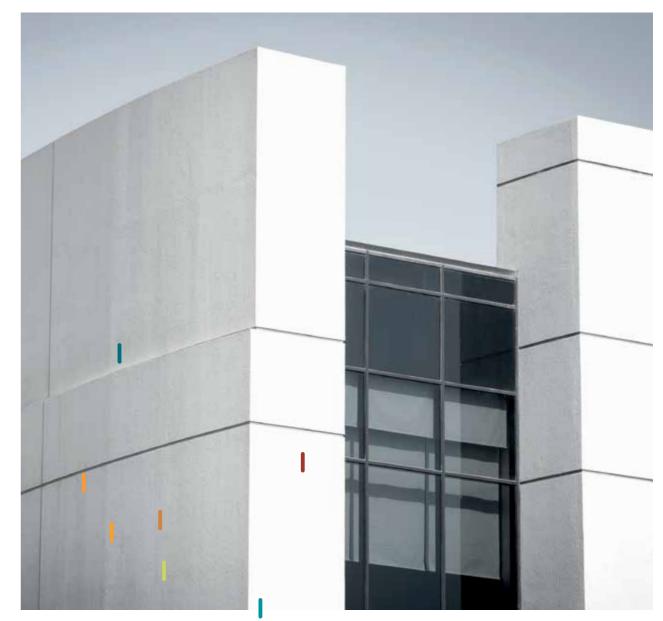
The competition themed "Compete, Show your skills & Get rewarded", was led by the Department of Management and Marketing Community Outreach Committee (COC). It aimed to motivate and encourage students to deliver their course projects in a creative and challenging way. Topics from the other student teams included managers and

management; external environment; decision-making, planning, organizing, leading, and controlling; individual behavior; and managing groups and teams.

During the academic year, CBE students also benefitted from lectures delivered by guest speakers, and from instructional and interactive forums with the CEOs of Doha Bank and Vodafone Qatar as part of the college's ongoing and highly-successful Executive-in-Residence program.

As part of its ongoing collaboration with partners in the business and finance sector, the College initiated plans with Qatar Chamber of Commerce to establish a fund of QR3 million to contribute to advancing QU's mission to promote a culture of entrepreneurship. Additionally, an agreement with Qatar Development Bank proposed a conference in October 2015 to facilitate discussion on entrepreneurship in Arab countries. In an agreement with Qatar Transparency Corporation, the college hosted the first assembly on transparency and corporate responsibility. A collaboration with McDonald's Qatar themed "Think Big" in April 2015 drew the participation of 135 students that included CBE students along with those from other QU colleges in interactive sessions aimed at enhancing skills among the students and encouraging creative





problem solving, analytical thinking, presentation skills, the importance of team spirit, and more.

Collaborative research activities are being planned with King Abdullah Petroleum Studies and Research Center (KAPSARC) on a range of topics including energy, and the relationship between Asian and Gulf countries. This followed the college's visit to the center and participation in a series of one-day seminars.

An important event on CBE's calendar during the academic year was the organization and hosting of the 2nd Entrepreneurship in Economic Development forum in March 2015 in collaboration with the Interactive Business Network (IBN) and Qatar Ministry of Economy and Commerce. The 2-day event themed "Fostering the New Generation of Entrepreneurs in Qatar and the Gulf" followed the success of the first forum held the previous year. It aimed at inspiring and boosting entrepreneurship among the young generation in Qatar and other GCC countries, enabling them to develop

individual initiatives to support economic development and prosperity in line with the goals expressed in Qatar National Vision.

Other forums conducted by the college included:

Accounting and Finance Day, May 2015; Academic Advising Open Day, May 2015;

International Conference on "Access to Financing SMEs and Entrepreneurs in the Arab World", May 2105;

Seminars in May 2015 for the Shura Council on "The process of economic integration of the Gulf Cooperation Council: Achievements and Challenges";

Seminar on the auditing and accounting profession in Qatar, held jointly with QU College of Law.

# COLLEGE OF EDUCATION (CED)



During the academic year 2014-15, the College of Education recorded a number of accomplishments in terms of research, faculty and student grants, and appointment of graduate assistants, teacher professional development, and outreach to schools.

The College also established a dedicated Educational Research Unit to contribute towards developing and enhancing practices in Qatari schools based on the most recent educational research and scholarship recommendations. The Unit also works towards supporting and facilitating faculty research, enhancing their research profile and international standing (e.g. h-index, citations) as well as improving their record of publications in peer-reviewed academic journals through sharing successful experiences and examples of good practice.

In addition, five specialist research groups were established to work on the major educational research themes identified by the College's faculty and its collaborating partners, including schools' principals, teachers and coordinators.

The research groups are headlined under Educational Leadership, Educational Policies, Special Needs; Early Childhood, and Interdisciplinary Research. Each works on formulating their research plans and identifying the short-term and long-term objectives to be achieved in order to fulfill the objectives of the Unit.

The Unit organized a number of research-focused workshops and seminars led by CED and external experts aimed at enhancing faculty educational research and scholarship of College's faculty. The Unit also

provided technical support and consultancy for researchers on quantitative research methodology and data analyses, including a workshop on the use of the Statistical Package for Social Sciences (SPSS) in educational research. In addition, faculty were engaged in a workshop on the use of a specialist program (NVivo) for qualitative data analyses in education and social sciences.

During the academic year, the College attracted NPRP research funding for 3 of its 13 research proposals submitted for the 8th cycle -- a success rate of 23.8%. The proposals included topics relating to modern approaches for teaching sciences and math in schools, the selection and preparation of independent school principals in Qatar and the development of reading and writing in Qatari kindergarten. For the 17th UREP cycle, the College was successful in securing funding for 2 research proposals out of its 11 submissions -- a success rate of 16.7%.

The College also contributed towards propagating a culture of educational research among faculty and students through the organization of the first exhibition of CED students' research, in which 16 research posters were exhibited by 35 students. Additionally, the college appointed 3 postgraduate students as research assistants in the Educational Research Unit as part of the institutional program for supporting graduate assistants. The research assistants also benefitted from a number of specialist courses and workshops designed to develop their research skills and competencies.

During the academic year, CED organized the 1st Educational Conference on May 2-3, 2015. The

conference, themed Partners in Excellence, was held in collaboration with the Supreme Education Council, and sponsored by QNRF and UNESCO in Qatar. It provided an opportunity for experts, academics and researchers in the various fields of education to exchange their knowledge, information, experiences and research outcomes, and aimed to establish a network for educators to facilitate future communication and opportunities for collaboration among experts in the field

Participants discussed current educational issues and trends that are relevant to the Qatari context, as well as the importance of the role of teachers in educational reforms and providing a platform for exchange of national and international experiences.

Fifty-three (53) abstracts were accepted from the total of 120 research abstracts received from researchers representing 25 countries. They were reviewed and selected by a group of specialist academics representing each of the 4 main educational areas under the conference theme: 1) Educational Leadership: theory and practice, educational policy, leadership and learning; 2) Educational Policy and Issues: educational reforms, research and evaluation, contemporary issues and trends in education; 3) Teaching and Learning: curriculum and assessment, practice through different developmental stages; and 4) Special Education: academic success for all. reinforcement of positive behavior in school, development of communities of practice.

The accepted abstracts were presented in the specialist sessions of the conference and were subsequently published in the conference proceedings.

During the conference days, several meetings were conducted that were aimed at boosting collaboration and cooperation among several groups. One such meeting brought together deans of colleges of education from universities in the GCC countries aimed at developing an Association for GCC Colleges of Education to facilitate future collaborative initiatives among them.

A number of meetings also took place with educators from various international universities including Exeter University UK and University of Massachusetts USA to develop collaborative activities on research and scholarship as well as facilitating the postgraduate programs in education, including CED's Doctoral Program in Education that is under consideration.

The academic year saw the appointment of six new faculty members with specializations in Science Education, Islamic Education, Mathematics Education and Psychological Sciences, bringing the faculty body to forty-seven.

CED faculty academic endeavors included the participation of 32 members at thirty international conferences held in Australia, Canada, Dubai, Hong Kong, Italy, Japan, Kuwait, Lebanon, Saudi Arabia, Turkey, USA, and UK. Faculty also provided a total of 9 workshops and seminars for QU Office of Faculty and Instructional Development.

An important achievement by a faculty member was the award for research citations in the field of humanities by Elsevier Publishing under the Qatar University Scientists 2015 Scopus Awards – the first such in the Gulf region.

Student numbers increased at CED in 2014-2015 with the admission of 405 comprising 380 female and 28 male -55% of which are Qatari nationals.

As part of its efforts to enhance student learning, the College established the Peer Support Program in Fall 2014 designed to provide academic support and assistance to students who are either struggling in their courses or deemed at risk. The highly-popular program serves to increase their academic performance as well as reinforce a sense of community and belonging at the college, with their peers serving as role models and a valuable source of support.

12 distinguished students participated in the Program, providing 536 hours of tutoring in 11 courses during 7 weeks of the Fall semester, serving 110 students. In Spring 2015, 7 CED Dean's List students provided over 900 hours of tutoring in 20 courses and serving 168 students.

CED students were also engaged in a number of learning experiences in the form of participating in conferences such as the International Conference on Education in Dubai, March 8-10, 2015, and Qatar TESOL 2015 Conference, and volunteering at the college's 1st international education conference. Next year, CED students will themselves present some of their research projects at the conference in Dubai.





# COLLEGE OF ENGINEERING (CENG)

During the academic year, CENG worked assiduously to advance a unique engineering education, high quality research output and sustainable community engagement, thus enhancing its position in the region as a leading center of excellence.

The college enjoyed a number of achievements such as launching the Engineering Research Building, substantial growth in its student body, top NPRP awards, student academic successes, increased faculty research output and more.

One notable achievement was that the first-ever PhD degrees awarded in the country were awarded to one male and one female student from CENG in civil engineering and computer science & engineering respectively. This was a milestone for QU and especially the College that has grown by leaps and bounds and which is now positioned as one of the best engineering colleges in the region and the producer of the largest number of graduates to the country's industry sector.

The new research building was renovated from the former QU library over the last two years into a world-

class facility featuring six highly-specialized laboratories – Biomedical Engineering, Nanotechnology, Energy and Environment, Virtual Reality, Innovation and Design, and houses the Qatar Road Safety Studies Center. It is designed to advance student and research faculty research activities, and to engage the needs of the industrial sector. The facility is host to over 120 of the college's post-doctoral researchers and research assistants and holds rooms for visiting professors and international collaborators.

CENG experienced a substantial increase in its student population in the academic year -- undergraduate enrollment was up by 23% and graduate student numbers were up by 30%. This is very likely a result of the college's concerted outreach campaign to high school students to gain their interest in pursuing studies in science and engineering.

The college is currently home to more than 50% of the graduate student body at QU.

The college's successes under the Qatar National Research Fund (QNRF) included 27 grants in the NPRP

8th cycle -- about 50% of all grants awarded to QU and 13 grants in UREP 17th cycle – again, about 50% of such grants were awarded to QU. The NPRP grants amounted to US\$ 25million.

A team of undergraduate students won 3rd place for poster and oral presentations in the UREP competition, while several graduate students won 6 grants under the Fund's Graduate Study Research Awards (GSRA). The majority of awarded research projects cover several national research grand challenges such as cyber security, water, advanced materials, and transportation safety.

The college was also successful in securing grants worth about US\$ 2 million for 3 industrial research projects, thanks to its dynamic researchers and strong collaboration with the industry.

During the academic year, CENG students excelled in a number of international competitions such as Shell Eco Marathon Asia, Shell Ideas 360, the Microsoft Imagine Cup and more, as indicated below:

	-		
Achievements	Country	Year	Rank
2014 SPE Regional University Student Program "HSE: A Way of Life"	Qatar	Sept-14	1st Place
7th International Conference on Similarity Search and Applications - SISAP 2014	Mexico	Oct-14	Best Paper Award
International Conference on Computers in Education (ICCE)	Japan	Nov/Dec-14	Best Design Technical Paper, Best Student Paper
Education Excellence Award	Qatar	Feb-15	Gold Medal/ Platinum Medal
Shell Eco Marathon Race 2015	Philippines	Feb-15	6th place - prototype electric powered vehicle category; 7th place - alternative fuels powered vehicle category.
Prince Sultan bin Salman ArchitecturalHeritage Award	KSA	Mar -15	1st Place
SEC Excellence Awards	Qatar	Mar-15	Gold and Platinum Awards – 2 students
Poster and oral presentations for Undergraduate Research Experience Program (UREP) competition	Qatar	Mar -15	3rd Place
Microsoft's Qatar Imagine Cup- Innovation Category	Qatar	Apr-15	1st Place
Shell Ideas 360	Netherlands	May-15	Top 5 Finalists of Season Two 2014/15
9th International Conference on Managing Pavement Assets	USA	May-15	Pavement Management Challenge Special Recognition Award
Microsoft Imagine Cup -Innovation Category Pan-Arab Region	Bahrain	May-15	3rd Place



Additionally, CENG undergraduate students benefitted from opportunities emerging from the college's strong partnership with the International Association for the Exchange of Students for Technical Experience (IAESTE) program, gaining international training at various leading industries and universities in South Korea, Germany, Spain and UK.

Architecture students benefited from a field trip to Andalucia, Spain in May 2015, and also had the opportunity to meet the Aga Khan Award winning female architect, Fuensanta Nieto, along with her students from Madrid Architecture School.

Students from the Architecture and Urban Planning Department also participated in the collaborative events under the theme "Landscape as Infrastructure for Biodiversity and Food Security: Perspectives from Switzerland and Qatar" organized among the department, the Embassy of Switzerland in Qatar, and Zurich University of Applied Sciences (ZHAW), and sponsored by Al Sulaiteen Industrial Complex and Nakheel Landscapes.

The events included the inauguration of a Rooftop Permaculture Garden and the launch of an exhibition entitled "The Swiss Touch in Landscape Architecture" featuring installations of hydroponic growing systems and native plants. Their aim was to engage students and attendees on the pioneering knowledge on Green Roofs developed at ZHAW and implemented in international projects such as the London Olympic Games venues and the Basel Urban Rooftop farm; and to translate the experiences and lessons learned to develop similar elevated landscapes in Doha and Qatar as well as other Gulf cities and drylands. Other forums included lectures and workshops on "Green Roofs in Switzerland and the UK and their application in Qatar".

CENG alumni continued their relationship with the college, participating in meetings conducted by the respective departments, and serving as role models at various high-school outreach events to boost young students' interest in pursuing studies in

science and engineering. They also organized the CENG Alumni Reunion and the Al Mailis event, both in March 2015.

The academic year also saw the recruitment of new faculty in a range of engineering disciplines and the promotion of 4 faculty to full professor (1) and associate professors (3). Faculty members continued to excel in all fields of science and engineering and research, published over 540 papers (which included over 270 journal articles) in peer-reviewed publications, and secured substantial funding from Qatar National Research Fund (QNRF) and directly from the industrial sector.

A chemical engineering faculty team won the NPRP Exceptional Award for their research project entitled "Design of Novel Catalysts and Processes for Carbon Dioxide (CO2) Conversion from Micro- to Macro-scale". The Award is in the form of a 5-year grant in the amount of US\$ 4.798,236.

Other awards and accomplishments included:

Best Paper award by a team of 3 faculty members at the IEEE-Smart Energy Grid Engineering Conference (August 17-19 2015), in Ontario, Canada;

Best Paper award to faculty team for the 2014-2015 academic year in the journal ACM Transaction on Multimedia Computing, Communications and Applications. The award recognizes the most significant work in the ACM TOMM during the academic year, August 2015:

Best Paper Award to faculty team at QR2MSE 2015, Beijing, China, July 2015;

Best Paper Award to faculty team at IEEE IFIP NTMS conference, Paris, France, July 2015;

Highlighted research work by mechanical engineering faculty and international collaborators on lifelike artificial skin on the BBC program "BBC Future" in July 2015, and the IEEE Journal Transactions Neural Systems and Rehabilitation Engineering in May 2015; SEC Excellence Award (PhD holders category) to 2 computer engineering associate professors March 2015; and Best Paper Award 2nd place in the 26th International Conference in Microelectronics 2014, Doha.

CENG faculty members are also currently collaborating with over 200 researchers in joint research projects. Additionally, they provided consultancy and expert advice to the college's partners and as serving members in various government think tank groups, expert committees and panels.

Faculty also served as expert presenters at a number of forums namely the Materials Science and Engineering Symposium, Doha, March 2015; World Stadium Conference, Doha, May 2015; QS-MAPLE 2015, Doha, May 2015; and the Inter-regional Workshop to enhance opportunities of cooperation in the fields of Energy Efficiency and Renewable Energy between the GCC and Turkey and Doha, December 2014.

During the academic year, the college held and organized a series of events that included the GCC Engineering Colleges meeting, 3rd Engineering Week, Senior Design Contest, Mechanical Design Day, Industrial Day, 6th Architecture Day, and the 11th edition of the ACS/IEEE International Conference on Computer Systems and Applications (AICCSA), as well as various high-school outreach events such as 3rd Wooden Bridge Competition and the QU Computing Contest 2015.

Another important forum on the college's academic schedule was the highly popular International Gas Processing Symposium on October 26-27, 2014. In its 4th edition, under the theme Natural Gas and World's Energy Mix, the symposium featured a series of discussion and technical sessions, workshops and training seminars led by expert presenters and drew over 200 delegates from academic,



government and industry organizations. The event also included an exhibition by QU College of Arts and Sciences, QU Environmental Studies Center, QP, QAPCO, Dolphin Energy, Oryx GTL, ExxonMobil, and QAFAC.

Seminars and workshops conducted during the academic year included "Growth, Schools and Architecture", November 2014; and 1st Workshop on Smart Grid and Renewable Energy, March 2015, co-organized with Texas A&M University at Qatar. A series of seminars and workshops were also delivered to CENG faculty and students on sharing good practices in teaching and learning with the view to enhancing technical innovation and engineering education at the college.

Professional development and training workshops were conducted that benefitted various stakeholders and partners: "Introduction to Islamic Architecture", October 2014, for employees of Qatar Museums Authority (QMA); "Heritage Conservation in the Gulf," January 2015, for QMA employees; "Construction Safety" and "Aggregates Recycling Seminar," with Lafarge and Qatar Quarry, March 2015; "Variable Speed Drives", April 2015; "Railway Engineering", May 2015; "BIM and Safety in Architectural Design", December 2014; and "Pomp and Ceremonies -The Architecture of Mughal Magnificence", at Birla Public School, April 2015.

The college continued to advance its partnership and collaboration with a range of industry organizations in Qatar. It also signed a number of MOUs with international academic institutions such as with Politecnico di Torino (May 2015) and Politecnico di Milano (Italy) (July 2015), and Thales (September 2014).

The agreement with Politecnico di Torino established a double Master's and Doctoral degree program in science and engineering disciplines for students from the College (CENG) and Polito, while the agreement with Politecnico di Milano established a dual PhD program in all fields of engineering, architecture and computing.

The Thales agreement, signed in September 2014, established the Thales Professorial Chair in Cyber and Computing Security (CCS) in QU at the college's Computer Science and Engineering (CSE) department. Students from the department will gain opportunities for practical experience in research and development at CENG and at Thales' office in Qatar Science Technology Park (QSTP).

In Fall 2014, the College joined the online iPodia Forum in which its students successfully participated for the first time in a class on "Principles and Practices of Global Innovation" simultaneously with students from University of South California (USA), Birla Institute of Technology and Science (India), and Aachen University (German), providing them with an exciting experience of contemporary global education.

Other activities by CENG faculty during the academic year included consultancy to industry; serving as members in the National Traffic Community Service project for the study of expressways in Qatar; chairing the Supreme Education Council Committee for the Emiri Excellence in Education Award (university student category); serving as evaluators of high school students' work at Schools Research Day; and outreach visits to schools to orient students on the importance of science and engineering in the country's development and progress.

# COLLEGE OF LAW (LAWC)

During the academic year, in line with its pursuit of excellence in teaching and research, the college established its first Masters' programs, recruited several high-caliber faculty, achieved research successes, developed a number of initiatives to drive students' lawyering and leaderships skills, advanced its collaboration portfolio, and implemented plans for accreditation status.

The Masters' programs -- LLM Public Law and LLM Private Law -- which will be taught in Arabic, are the first of their kind in Qatar and were designed to prepare law students with specialist skills to contribute to the professional sectors within Qatar, consistent with the growing demands of the labor market and in line with the objectives and values of Qatar National Vision 2030 and the development strategies.

They also aim to build an environment of high-quality legal research and scholarship that will advance the College's position as the only law college in Qatar and enhance its competitiveness with peer-colleges with similar programs in the region.

8 new faculty from various academic backgrounds and professional expertise were recruited to support the programs and to add value to the college's teaching/learning environment.

In research, LAWC faculty collectively published more than 30 pieces of work in international journals and books, exceeding the target of 25. Research awards were also achieved in NPRP, UREP and QU and other internal grants. An NPRP award of more than US\$500,000 was won by a faculty team for research on Qatar's Legal Preparedness to Host the FIFA World Cup.

During the academic year, the college's International Review of Law (IRL) continued to make big progress with visitors to the journal's website and readership of articles increased by 91 percent. In March, the first issue of its online law journal for 2015 was published, fielding five articles by authors from international law schools such as University College London (UK), Graduate Institute of International and Development Studies (Switzerland), Xi'an Jiaotong University (China), and Bouira University (Algeria) as well as legal professionals from UAE-based law firm Cleary Gottlieb Steen & Hamilton LLP.

The articles, in English and Arabic, and with abstract translations, covered a wide range of legal subjects and specializations -- investment law, international humanitarian law, criminal law, conflict law, and EU law – with several addressing legal issues raised in the College's conference on the Syrian crisis held in February 2014.

The college also increased its law library stock by more than 25 percent of both books and electronic resources.

During the academic year, the College developed 2

proposals – the Legal Clinic Project and Law Competitions Committee – initiatives designed to enrich students' preparation for the legal environment and enhance their skills and competencies in oral debating, advocacy and negotiation.

The comprehensive Legal Clinic proposal which was benchmarked and professionally peer-reviewed, aims to create a unit within the College of Law with the view to preparing students for real-life scenarios of legal suits and delivery of consultative expertise to the public. It also proposes the creation of a student-led law practice that serves the public interest, provides free legal aid, and is also a tool for practical teaching.

The Law Competitions Committee proposal emerged from LAWC's organization and hosting of the 2nd edition of the Arabic Moot Cout competition in April 2015 which saw the participation of 8 teams from Jordan, Qatar, Oman, Palestine, Tunis, Kuwait, Lebanon and Iraq. In preparation for the Moot, a case was drafted by LAWC professors and a task force was formed to create a comprehensive policy for Moot Courts in Arabic. A policy proposal was also drafted for the implementation of an Arab Law Competitions Committee and has been forwarded to law colleges in the region and is currently awaiting feedback.

In its activities to boost students' academic and research skills and enhance their professional development, the College provided a wide range of training, volunteering and other opportunities through students' participation in forums such as the 2nd regional Arabic moot court, conference on Challenges to Security and Human Rights in the Arab Region, WTO Arab Ministerial Conference, International conference to celebrate the 10th anniversary of Qatari Civil Code; United Nations 13th Conference on Crime Prevention and Criminal Justice, GCC Traffic Week, Career Fair, Gulf Certified Arbitrators course, and the 1st Student-Alumni legal debate. Students also volunteered in the Central Municipal Elections, published the 1st volume of the LAWC student law magazine, designed and delivered an awareness campaign on cheques, and delivered lectures to high schools on the protection of Qatar's flag on the occasion of Qatar National Day.

As part of its vision to be a center of excellence in legal education and research, the College continued to bring together expert legal minds, legal professionals, faculty, and students from Qatar, the region and beyond in a number of forums

Some of the most primary forums were the international conference celebrating the 10th Anniversary of the Qatari Civil Code, and the Regional Forum on Arbitration & Construction Disputes. The former attracted top speakers from Qatar, France, USA, Egypt, Jordan, and Palestine, and presented papers were compiled in a book and circulated to local, regional and international institutions. The latter was

led by the College's Business Law Forum and was organized for the second year in collaboration with Qatar International Center for Conciliation and Arbitration (QICCA).

Other forums included:

A consultative meeting to discuss the idea of establishing a specialized Commercial Court in Qatar;

Launch of a series on new legislation concerning Qatar's new cybercrime law

A workshop on money laundering law in Qatar and the role of financial information units; 5th roundtable on Qatari legal culture in cooperation with Doha International Center for Interfaith Dialogue (DICID);

Seminars on Crossroads of Law and Medicine - A Qatar Perspective (with Weill Cornell Medical College in Qatar), Legal challenges for media in the digital area, and Qatari commercial law (on the occasion of the "Made in Qatar" exhibition):

A one-day event on the legal and professional perspectives of accounting practices in the State of Qatar (with QU College of Business & Economics).

Celebration events on the Universal Declaration of Human Rights, and the Anti-Corruption International Day

Launch of the French Culture Club.

LAWC faculty and students also participated in panel discussions on the occasion of the celebration of the 20th anniversary of the Gulf Center for Commercial Arbitration, the 4th seminar on consumer protection led by Qatar Lawyers Association, and the celebration of Intellectual Property International Day.

A delegation from the college participated in the World Bank Law, Justice and Development Week 2014 (Oct 24-25) and presented their research in front of an audience comprising over 148 international partners from industry, academic and civic society. Papers were presented on "Access to Information as an Enabler and Catalyst of Good Governance and Development – Insights from Recent Practices in the Arab Region" and "The World Bank and International Poverty Law: Towards Development of a More Comprehensive Analytical Framework for Reducing Poverty and Boosting Shared Prosperity through Systematic Improvement of Law and Legal Institutions".

The college also hosted a number of top legal experts with the view to enhancing partnerships as well as providing interactive discussion opportunities for its students. The academic year saw visits from the Lord Chief Justice of England and Wales, Canadian judicial expert, Netherlands Human Rights Ambassador, director of the French Judicial Training Institute, judges from Palestine and Pakistan, representatives from Qatar Tourism Authority's legal department, members of BARBRI International Training Center, head of Training and International Cooperation Department of the Public Prosecutor's Office, and a team from Qatar Community Police.

In turn, a LAWC administrative team paid visits to various organizations for discussion and exchanges on mutual cooperation and other matters -- Qatar Financial Center, Ministry of Information and Communication Technology, the new law school at Hamad bin Khalifa University, and the French Embassy in Qatar.

During the academic year, the college developed partnerships with Qatar Lawyers Association, . Doha Center for Media Freedom, Doha International Center for Interfaith Dialogue, Weill-Cornell Medical College in Qatar, Project Qatar, and Royal Institute of Chartered Surveyors Doha office, and with researchers at Kings College, William and Mary College, Queen Mary University, Center for Energy, Mineral and Petroleum Law and Policy at Dundee University, Arbitralis Arbitrators, Chicago Law School and others.

It also expanded its cooperation activities with existing partners Qatar Chamber of Commerce, Qatar International Center for Conciliation and Arbitration, Qatar Judicial Center, Human Rights Department, and the Ministry of Interior.

During the academic year, consultation services were provided by the college in drafting the English version of the Qatari cybercrime law, and the policy for the new legislation initiative of the Qatar Ministry of Justice.

Future plans for the college include:

Attaining an international academic accreditation. The college is currently looking at various options of international accrediting agencies in the US and other countries.

Establishing a Legal Clinic Program and the appointment of a director and faculty members with legal clinic experience. Several faculty are involved in the designing and implementation process of the program.

Developing new elective courses (particularly in the enhancement of the Criminal Law elective courses package). A new course in "Traffic Law' will be designed and introduced for approval.

Continuing its efforts in outreach and building relations with other academic and governmental institutions nationally and internationally.



# COLLEGE OF MEDICINE (CMED)

September 13, 2015 was a proud day in the history of Qatar University: The inaugural class of medical students started on their journey to becoming the first generation of locally trained national physicians. They will be pioneers of the new College of Medicine where they will be educated in an innovative program with focus on national needs and priorities, while fully complying with international standards.

This journey began with intensive and careful preparation two years ago, with the milestone announcement being made in October 2014 by QU Board of Regents, establishing the university's 8th college.

The college was initiated at a crucial time for QU and Qatar: a fast-growing population placing added pressure on the healthcare system, and public health concerns becoming more apparent. Added to this is the decline in the number of Qatari doctors serving the community according to its needs and in line with its cultural values.

Based on an initiative of HH The Emir, the establishment of the college reflected the wish of many Qataris and plans began in 2013 to fulfill these aspirations. The first step was the creation of a national Steering Committee, comprising key members from Qatar University and Hamad Medical Corporation (HMC) who oversaw the development of a feasibility study for the proposed college. The study included regional and international benchmarking, market research with 350 students and employers, and the analysis of demand and supply for physicians in Qatar. The clear recommendation was that the College of Medicine should be established at Qatar University, with the objective to provide nationally trained physicians to the Qatari healthcare system, in full support of the Qatar National Vision and the National Development Strategy.

The College was officially established in October 2014 by the QU Board of Regents. Key appointments were made, enlisting highly experienced experts in medicine, medical education, and student engagement. These included: Dr. Egon Toft, a cardiologist by training, as Vice President for Medical Education and Dean of the College of Medicine bringing with him a broad experience of building medical colleges and other academic initiatives in Denmark; Dr. Abdullatif Al Khal, Head of Medical Education at HMC, and Ms. Ghada Al Kuwari, both Qatari nationals, as Associate Dean for Clinical Affairs and Assistant Dean for Student Affairs respectively.

From the outset, the College's development has been supported by an International Advisory Board of experts whose efforts have ensured its adherence to international best practices and latest trends. Members from Stanford University, Johns Hopkins University, Heidelberg University and the American University of Beirut, among others, worked closely with faculty and administration and continue to support the College in its plans and endeavors.

Focus on curriculum development was a key element for the College, recognizing its importance in the delivery of a



successful college and a qualified cadre of graduates.

The College will pursue ambitious research programs in translational molecular medicine, public health and clinical research, tackling diabetes, cancer, and cardiovascular diseases, along with research and clinical partners in Qatar and internationally. It will also thrive in strong collaboration with the pharmacy and health sciences areas at QU to engage interdisciplinary and inter-professional learning, as well as research and community service across the college lines.

Built on European and US best practice models, the 6-year MD program is largely based on problem-based learning, encouraging students to actively develop their skills in an integrated way through patient cases, studying in small groups guided by experienced physicians, and developing clinical and communication skills, all the while using the most innovative technologies available. Students will also learn how, as physicians, to appreciate and navigate the specific context of Qatar's culture and societal values.

The initial 7 semesters of training will be followed by practical learning in a clinical environment, studying among medical teams at top healthcare institutions such as Hamad Medical Corporation, Primary Healthcare Corporation, and others, in Qatar and internationally.

In preparation for graduation, students will sit for international licensing exams, achieving the stamp of quality to serve as physicians anywhere in the world.

The curriculum was reviewed by both internal and international reviewers, including world-leading medical education experts from Harvard University and Karolinska Institute. The ambitious state-of-the-art program received high praise for reflecting latest developments and integrating communication skills and clinical practice early on.

Recognizing that a vibrant curriculum needs the support of the right faculty and administration, the College recruited a core team of international faculty from North America, Europe and the Middle East, from prestigious institutions such as Karolinska Institute in Sweden and McGill University in Canada. All these establishments have long experience in problem-based learning, many have an Arabic heritage and most have a prolific research record. They will not only guide the students toward their profession as doctors, but will contribute to establishing the College of Medicine as a source of high-quality research and community service with relevance for Qatar.

Important to the College was that its education is aligned with the needs and expectations of the community. In May 2015, an event with more than 40 Qatari stakeholders investigated expectations towards "Tomorrow's doctors as seen by their community", the results of which were given careful consideration in the curriculum.

Several events took place over the past months to train

physicians from Qatar's healthcare system to become effective clinical faculty for the College -- many Qatari physicians participated in these events.

The college held a number of outreach and awareness events to enlist high-

achieving students to the program and to shed a spotlight on the profession to high school students in general, cognizant of the fact that the quality of its medical students will determine what kind of doctors will serve Qatar in the future.

Visits were made to more than 25 Qatari highschools, and several community events attracted more than 1,000 students who were keen to know about the college and its program.



Despite learning about the demanding schedule of a medical study program and the future medical profession, more than 700 students applied to be awarded one of the 50-60 places in the College's inaugural class.

Admission to the college is competitive for Qatari and international students, yet it is the aim of the College to have a majority of Qatari students. This group of pioneers will pave the way for a new cohort of Qatari physicians.

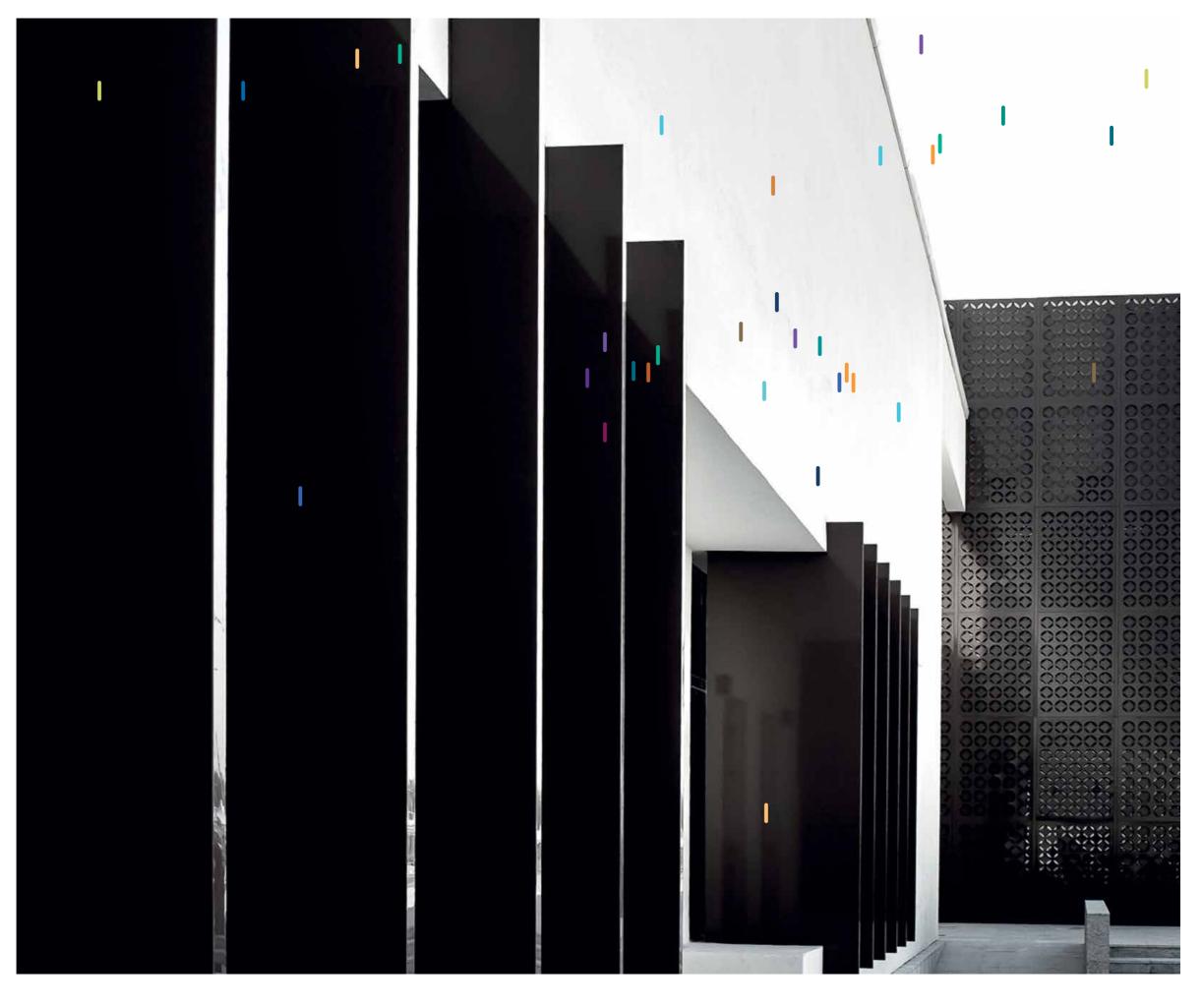
The next months and years will see more landmarks in the development of the College of Medicine on its path to becoming the college of choice for prospective medical students in Qatar, the region and beyond. This includes a new building, increased collaboration with international institutions worldwide and achievement of accreditation.

An interim building launched in Spring 2015 hosts group learning facilities, a skills lab, lecture rooms and a library in addition to leisure facilities for students. In the meantime, the design phase for the new "permanent" state-of-the-art medical college building is in process. The new building will be adjacent to the college of pharmacy and biomedical research and teaching facilities contributing to a cluster of health and medical programs and research centers.

The new building will develop on QU campus, liaising with the organization's pharmacy and health sciences fields, and its Biomedical Research Center and other research centers, as well as research institutes in Qatar, thus creating the breeding ground for vibrant collaboration in teaching, research and community service.

New collaboration agreements are being signed – most recently with Maastricht University – and it is expected that the college will continue to attract more academic and research partnerships as it settles into its new

September 13, 2015 was a milestone achievement for QU and for Qatar. Notably, the first graduating class of the College of Medicine will emerge at the time of the country's hosting the FIFA World Cup. They will make their country proud by their service and contribution to the medical profession in Qatar. With continued support from its partners in Qatar and beyond, and from the Qatari society, the College of Medicine will ensure that their journey is successful.







The academic year also saw the College receive a total of QR 3.6 million in NPRP, QU, internal and startup grants - a 12% increase from the previous year. This included 10 internal grants (QR 1 million QR), 1 NPRP 8th cycle (US\$ 899,000), 2 UREP 17th cycle (US\$ 60, 000), HMC grant (QR250,000), 34 Student Grants (QR34,000), Canadian Society of Hospital Pharmacists Research and Education Foundation grant (Cdn\$ 500).

Faculty research was published in 43 peer-reviewed journals including 27 as Research Reward, and 3 book chapters in leading international publications.

The college held the 5th Annual Student Research Forum, June 2015; Nanotechnology in Drug Delivery and Bioengineering (NDDB) Mini Symposium in May 2015; and the 1st international symposium on Drug Discovery the month before.

The Research Forum was an opportunity for P3, P4, Masters and PharmD students to deliver their oral presentations and showcase their research projects. The NDDB symposium drew participants from around the world and presenters from CPH, QU Center for Advanced Materials (CAM), University of Central Lancashire UK, University of Sharjah, and University of Science & Technology Jordan. The Drug Discovery symposium, themed "Contemporary advances in the field"

(HMC), Qatar Biomedical Research Institute (QBRI), Anti-Doping Lab Qatar (ADLQ), and University of Toledo, and University of Saint Joseph of the US, shared their leading research with a scientific audience from academia and 

The College also joined forces with HMC Heart Hospital Department and the National Center for Cancer Care and Research (NCCR) for a one-day symposium on Interprofessional Collaborative Care in Ambulatory Settings themed "Improving Outcomes among Heart and Cancer Patients through Inter-professional Collaboration in Ambulatory care Practice", drawing around 90 health care providers, researchers, faculty, and health-related college

During the academic year, the College placed IPE at the forefront of its collaboration efforts with partners in the healthcare sector. The win to host the IPE conference followed a successful year of IPE events organized by the College that engaged students and medical professionals

saw the participation of a panel of experts from USA and Qatar. Speakers from CPH, QU, Hamad Medical Corporation

PHARMACY (CPH) During the academic year, the College enjoyed a number of achievements that included increased research output. a high number of student and faculty wins at international forums, published research in over 40 peer-reviewed journals, two important research symposiums, and strengthened collaboration with partners.

The College also advanced its role as a leading partner in inter-professional education (IPE) in Qatar, as a result of which it was awarded to host the IPE conference in December 2015.

Canada. She is the first student to participate in the month-long rotation for graduate students in the College's advanced clinical pharmacy program.

National students at CPH will be the beneficiaries of a scholarship program initiated by the Supreme Council of Health in a ceremony held in November 2014, as part of the College's commitment to addressing the need to develop Qatari nationals for future leadership positions in the medical and healthcare sector.

Faculty were also recognized for their academic achievements including:

- Scopus Award in medical and health sciences
- Elected Chair of the Canadian Society of Hospital Pharmacist's (CSHP) Global Health Pharmacy Specialty
- Best Poster Presentation at the Innovations and Global Medical & Health Education 2015 Forum
- Best Oral Speaker Award and Best Poster Award, Conference of Pharmaceutical Sciences
- Best Podium Presentation at the 5th Kuwait International Pharmacy Conference (KIPC)
- First place for research presentation in the Specialized & Translational Research Methodologies course competition.

During the academic year, the College continued to enhance collaboration with its partners in Qatar as part of its strategic plan and in support of the Qatar University roadmap, as well as the goal of QNV 2030 of building partnerships between academia and industry. These collaborations also serve to advance student learning and provide opportunities for them to engage in on-site practical experiences to match classroom theory. They also increase CPH's profile within the healthcare sector and its role as a leading partner in promoting quality health within the society.

Collaboration activities included:

A medication adherence program with Qatar Petroleum that started in December 2014. PharmD students worked with QP Medical Team pharmacy members to counsel patients receiving new prescriptions for complex treatments or taking many different medications each day.

Students' visit to Qatar Pharma to get a better understanding of best laboratory practices and good manufacturing standards.

Partner event with Al Khor Hospital for student learning on patient counseling.

Corporation (HMC), Primary Health Care Corporation (PHCC), Sidra Medical and Research Center, College of North Atlantic in Qatar (CNA-Q), Weill Cornell Medical College (WCMC-Q), University of Calgary in Qatar (UC-Q), Robert Gordon University UK, and King Abdulaziz University. Students achieved considerable

from (QU Dept. of Health Sciences,

Council of Health, Hamad Medical

QU Sport Science Program, Supreme

success during the academic year, winning 1st and 2nd place in various forums such as Qatar Foundation Annual Research Conference 2014, Doha; 22nd International Student Congress of (Bio)medical Sciences (ISCOMS). The Netherlands: 5th Annual Pharmaceutical Care Conference, Oman; World Innovation Summit for Health (WISH); and 61st Annual International Pharmacy Student Federation (IPSF) congress.

The prestigious Excellence Award was presented to a Master's student by His Highness Sheikh Tamim Bin Hamad Al-Thani for her achievements of advanced leadership and communication skills, participating in community outreach, conducting research, and receiving awards and recognition from other organizations.

The college also celebrated the highest grade with distinction awarded in December to a PharmD student for her Academic Leadership rotation at the University of British Columbia (UBC),

### COLLEGE OF SHARIA & ISLAMIC STUDIES (CSIS)



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The College reported a number of achievements in research, collaborative agreements, and community service during the academic year, and developed a number of plans towards its future development and progress.

The college continued to actively participate in all research award prorgams offered at the university as well as the awards offered under the NPRP of Qatar National Research Fund (QNRF). In the 8th cycle, 10 faculty members submitted research proposals, with one winning an award, while two proposals won grants under the Undergraduate Research Experience Programs (UREP). A faculty member was also awarded for a research poster presentation in the Qatar Foundation Annual Research Conference 2014.

During the academic year, the College signed several collaborative agreements, namely with Oxford Center for Islamic Studies, and Family Counseling Center. The former will promote exchanges for faculty and students from both parties, academic information and material, develop joint research activities and publications, and jointly organize seminars and conferences over three academic years. The cooperation agreement with Family Counseling Center will provide academic sponsorship, by which 4 CSIS students (2 male and 2 female) have been sponsored to carry out studies in the area of marriage and family counseling and domestic reform.

As part of its continuing push to establish a culture of research, the College attained approval to introduce new graduate programs in Exegeses Studies and Alliance of Civilizations. The latter was at the request of the Qatar Ministry of Foreign Affairs, in collaboration with the Islamic Educational, Scientific and Cultural Organization (ISESCO), and will be offered within the general elective requirements package.

The year also saw the College expand its efforts to improve its programs in line with current changes and developments at home and abroad, and to connect these programs to contemporary human concerns. In this regard, a Program evaluation project (Islamic Studies – Da'wa & Mass Communication) was conducted to respond to students' aspirations on the one hand, and to meet the needs of the labor market on the other hand, with the view to producing scientifically-qualified competitive graduates.

Future plans for the College include:

Proposing new programs based on the self-study results concerning current programs, which require urgent change and improvement. Accordingly, the College proposed the following programs:

Islamic Banking and Insurance

Jurisprudence and its Principles

Fundamentals of Religion

Da'wa and Mass Communication

Attracting specialized competencies in scientific research fields, particularly concerning issues related to humanitarian, Islamic and "legitimate thoughts".

Seeking academic accreditation -- this is in response to the decision of the deans of the colleges of Sharia on the necessity of acquiring academic accreditation for colleges of Sharia. It is expected that the exercise will take up to 3 years.

In research, the College plans to establish a Studies and Research Unit, focusing on accurate scientific research studies, particularly those related to legitimacy and Islamic thought, and generally associated with human thought. In this regard, the College will engage research projects that include an encyclopedia project on Occidentalism; and on contemporary medical concerns associated with jurisprudence disputes.



#### STUDENT AFFAIRS



During the academic year, QU students were well supported in their academic and research activities and career aspirations by the Student Affairs sector

Led by the Office of the VP for Student Affairs, the sector made considerable progress in several strategic priorities and objectives in relation to the university's strategic plans and goals. In this regard, Student Affairs continued to be grounded in its commitment to offering student-centered services and programs, cognizant of the importance of supporting students' needs and aspirations towards their academic success and future careers.

At the end of the academic year, 1422 students graduated from QU comprising 1042 women and 380 men. This included 1224 Bachelors. 185 Masters, 12 PhDs and 1 Diploma. Notably, QU celebrated the first-ever PhD degrees awarded in the country to one male and one female student from the College of Engineering in civil engineering and computer science & engineering respectively. This was a milestone for QU and especially the College that has grown by leaps and bounds and which is now positioned as one of the best engineering colleges in the region and the producer of the largest number of graduates to the country's industry sector.

In its support of QU's vision of research excellence, Student Affairs executed a range of activities in the academic year such as the creation of a Student Affairs Student Research Committee (SASRC), and in collaboration with the VP for Academic Affairs and VP for Research, engaged opportunities for students, especially those at undergraduate level, to participate in forums in which they can develop research skills and become future research stars.

The SASRC, formed of members from all relevant sectors of the university, is charged with closely examining current student participation in research activities and to make recommendations on increasing them.

During the academic year, the Student Clubs and Associations section initiated a category on research-based initiatives. In this regard, six associations conducted various research-related workshops (e.g. basic research skills, research poster sessions), trips (e.g. monthly research trip on QU research vessel "Janan") and competitions. Around 400 undergraduate QU students successfully participated in these initiatives.

In the academic year 2014-2015, QU student research success was reflected in a total of 72 grants achieved under the Undergraduate Research Experience Program of QNRF, benefitting 293 students in the amount of US\$2,692, 898.00.

In March 2015, an initiative for Early Conditional Admission was rolled out by the Admissions and Registration Department aimed at attracting highachieving secondary school students to apply for early conditional admission to undergraduate programs for Fall 2015. A total of 490 applications was received and in May, 350 students were successful in satisfying the minimum requirements to gain provisional undergraduate admission. Notably, all students who were successful were admitted into the college of their first preference, and all 8 colleges accepted early conditional admits for the next academic year.

Like research, community service stands at the core of QU's mission and vision, and opportunities for student participation continued at pace during the academic year. Student Affairs established and continued to strengthen many collaborations and partnerships with civil society and governmental institutions to engage knowledgesharing and public awareness on a number of issues important to the society.

Students across QU colleges were engaged in a number of outreach activities within programs in their respective colleges and through volunteering experiences organized by QU Center for Volunteerism and Civic Responsibility. The academic year saw 40% more students ioining the Center. Students participated in activities that included the celebration of International Volunteer Day in December, and a service learning trip to Nepal which engaged 20 students with the view to developing a framework of global understanding and citizenship. The Center also conducted charity events in collaboration with various charitable organizations in Qatar, and continued to identify areas for student volunteering off-campus, by creating and matching

volunteering opportunities to QU students, staff and faculty.

The aim of providing such opportunities for students is to engage their critical thinking, teamwork, organization and communication skills and self-reflection that will ultimately positively impact on their decision-making on careers and other important areas of their personal and professional lives.

Notably, QU became a member of the Tallories Network in October 2014, an international association of institutions committed to strengthening the civic roles and social responsibilities of higher education.

The Student Activities Department, in its commitment to providing cultural. academic, and social opportunities for the QU community in general and students in particular, engaged in a series of outreach events and programs in the form of consultancy, volunteerism and collaboration with stakeholders, In this regard, the Events and Campus Activities Section collaborated with Bedaya Center for Entrepreneurship and Career Development to host the third annual Qatar University Traders event in November 2014. The purpose of the event was to enhance students' knowledge and skillsets in the areas of entrepreneurship and social responsibility, as well as to support developmental projects that promote the capabilities of students to better respond to the needs of the community.

Also, the Section organized a National Day celebration event which featured booths highlighting Qatari traditions and heritage, including various activities and competitions. Two consecutive events were held on the male and female campuses, with QU female students performing a first-time piece of operetta dedicated to Qatar.

Other events organized by the Section included QU Cultural Village 2015, themed 'Bab Rozq', in which students of 19 nationalities participated. Students had the opportunity to celebrate and share their culture, heritage and traditions, and to demonstrate their volunteerism, teamwork, organization, interpersonal relations, and problem-solving skills.

During the academic year, students from across QU colleges participated in a series of events organized by the Aquatic Section such as the first-time "Discover Scuba Diving" event aimed at building community awareness about scuba diving and marine life in Qatar, and the celebration of National Sports Day in February.

150 QU students were among the 300 participants in the scuba diving event which was held on April 9 2015, in cooperation with QU Security and Safety Section, Lekhwiya Qatar, Qatar Coast Guard, Poseidon Dive Center, Dive Raid Qatar, Qatar Sub and VLCC Wellness Qatar.

QU students were also front and center as participants and volunteers at QU's celebration of National Sports Day led by the Sports and Recreation Section on the campus and at sporting and fitness events held at Katara that attracted 5000 attendees. In addition, the Section provided opportunities for students to be exposed to different sports and cultural experiences in various international environments. An example of this is the participation in July of a 29-member delegation from QU at the Gwanqiu Universiade 2015 in South Korea, an international sporting event organized by FISU (International University Sports Federation) and considered the largest multi-sports events after the Olympics.

Similarly, the Student Exchange
Section continued to create
international experiences for QU
students by establishing and facilitating
exchange programs and field trips with
universities and educational institutions
in the region and internationally.
During the academic year, the Section
collaborated with the colleges of
Engineering, Arts and Sciences, Law,
Business & Economics, Education and
Pharmacy in conducting and facilitating
student participation in conferences,
competitions and field trips around the
world.

Over 250 students benefited from student trips to the US, UK, Spain, Austria, Germany, France, Japan, Singapore, Greece, Malaysia, Korea, Iran, Oman, KSA, Bahrain, UAE and Jordan. The students developed a better understanding of global issues through practical out-of-class activities on topics related to their majors, interacted with students from other institutions and exchanged cultural experiences. Additionally, the Section continued to provide internship opportunities through the International

Association for the Exchange of Students for Technical Internships (IAESTE). Students from Engineering majors benefited from these internships and in turn, incoming international trainees gained opportunities to intern in Qatar and experience Qatar's social, economic and cultural environment.

QU students were also provided onsite experiences through the Career Services Center (CSC). This adds value to their current studies and motivates them to make informed decisions on their future careers. Internship opportunities were provided at organizations such as Qatar Primary Materials Company and ExxonMobil Qatar, engaging students in an invaluable opportunity to match their theoretical knowledge with practical experience.

In January 2015, the Center honored 120 companies and institutions in various sectors in Qatar who collaborated with QU colleges to train or sponsor students during the academic year.

In March 2015, the CSC also held its 9th Annual Sponsorship & Internship aiming to offer invaluable opportunities to students to meet potential employers enhance networks between QU students and alumni. The event drew the participation of 60 leading governmental and private organizations from different local sectors, and featured discussion sessions, lectures and seminars focused on exchanging information on the labor market between students and prospective employers.

The academic year also saw the election of new student representative members to the QU Student Representative Board in April 2015. A total of 92 candidates participated from all colleges, and 15 students were elected as new members of the Board.

At the end of the academic year, 80 students -- 51 Qatari nationals and 29 non-nationals -- were accepted to join the new College of Medicine and will become the country's first generation of locally trained medical professionals. The incoming students were selected from a total of over 700 applicants.

# SCIENTIFIC RESEARCH

During the academic year, QU's research endeavors continued to contribute to the fulfillment and progress of its core values of facilitating communication and enhancing partnerships and collaborations with government, industry, academia and other stakeholders. The organization enjoyed a number of successes under the NPRP and UREP cycles, the Graduate Student Research Award (GSRA) and the Post-Doctoral Research Award (PDRA) under QNRF.

 57 proposals presented by QU researchers were awarded in the 8th cycle of the National Priorities Research Program (NPRP) out of a total of 467 submitted proposals, which represents a success rate of 47.5%.

The College of Engineering (CENG) led with 27 awarded proposals, College of Arts & Sciences (CAS) 16, College of Business & Economics (CBE) 3, College of Education (CED) 3, Center for Advanced Materials (CAM) 2, College of Sharia and Islamic Studies (CSIS) 1, College of Law (LAWC) 1, College of Pharmacy (CPH) 1, Environmental Science Center (ESC) 1, Social and Economic Survey Research Institute (SESRI) 1, and Qatar Mobility Innovations Center (QMIC) 1.

 In the 16th cycle of the Undergraduate Research Experience Program (UREP), the University was awarded 21 out of 80 submitted proposals engaging 89 students, and marking a success rate of 26.25%. In this category, CAS led with the highest number of awarded proposals with 8, CENG 6, CED 2, CAM 2, CSIS 1, LAWC 1, and Foundation Program 1.

For the 17th UREP cycle, QU was awarded 26 out of 98 submitted proposals with a success rate of 26.5% while engaging 111 students. CENG led with 13 awarded proposals, CAS 9 and CED 2.

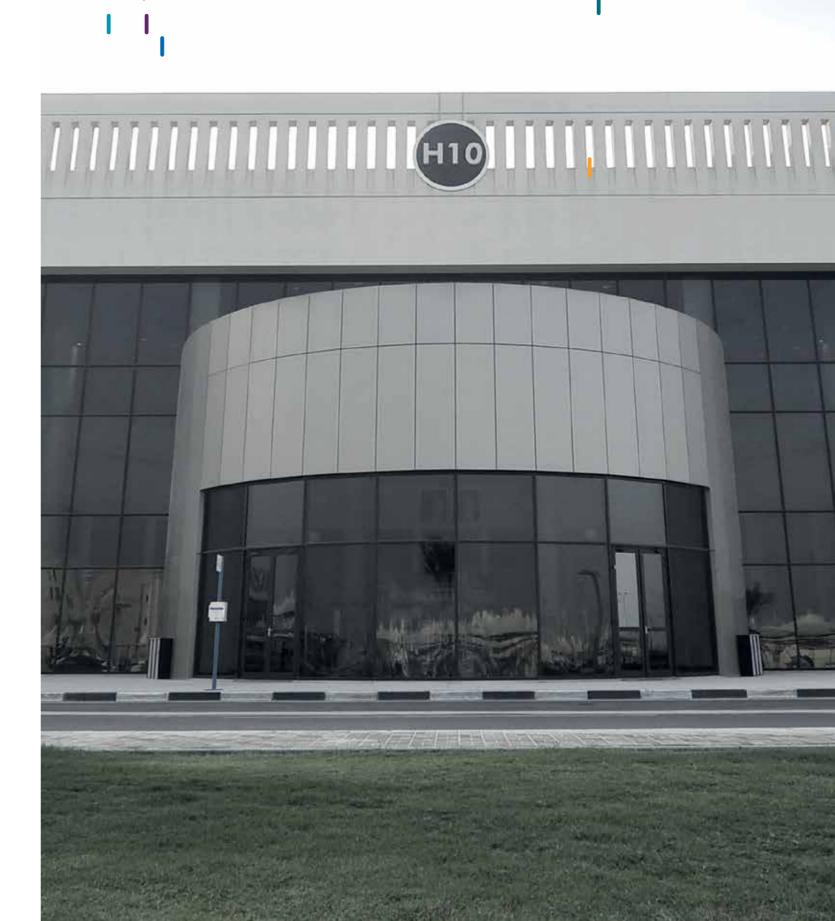
In the applied research area, 80 proposals were submitted and 24 were awarded, indicating a success rate of 30%,

while for basic research 18 proposals were submitted out of which 2 were awarded marking a success rate of 11.1%.

The highest number of proposals focused on engineering and technology. In this regard, a total of 37 proposals were submitted out of which 12 were awarded. 28 proposals in the area of social sciences research were submitted out of which 3 were awarded. 14 medical and health sciences proposals were submitted and 4 were awarded. There were 8 proposals in the natural sciences with four being successful. Humanities also had 8 proposals with one positive outcome, while for agricultural sciences 3 proposals were submitted out of which 2 were awarded.

- For the 3rd cycle of the Graduate Student Research Award (GSRA3), the University won 2 proposals out of 18 submitted (success rate of 11.11%). CENG submitted 14 proposals and won 2. The total awarded budget is USD \$991,200.
- In the 2nd cycle of the Post-Doctoral Research Award (PDRA 2), the University was awarded USD \$1,386,000.00 for 5 proposals out of 61 (success rate of 8.2%). CENG submitted 39 proposals and won 4 while CAS won one proposal out of 12.





# INSTITUTIONAL DEVELOPMENT

During the academic year 2014-2015, the Office of Institutional Planning and Development (OIPD) recorded a number of achievements that served to support QU planning, decision-making, and its ongoing development and progress, in keeping with the plans and goals outlined in its Strategic Plan 2013-2016. This was in the form of a number of strategic surveys and studies on topics relevant to the QU community, as well as members of the wider society such as prospective students and their parents, employers, and

In its ongoing institutional survey studies, the Department's Survey Section (SS) developed a number of questionnaires that engaged thousands of academic and administrative staff, students and alumni. The Section's most important survey studies were those related to students such as the National Survey on Student Engagement (NSSE), student satisfaction, and the graduating senior survey. Other surveys included the employee satisfaction survey, faculty satisfaction survey, as well as surveys related to the Qatari community such as high school student perception of QU and employer satisfaction.

The NSSE, conducted annually, assessed the extent to which undergraduate students were involved in educational practices empirically linked to high levels of learning and development. Schools from all across the country participated in the survey, representing a broad cross-section of first-year and senior students from every region of the country.

The Senior Graduating Survey, another critical one in OIPD's portfolio, covered Student Learning Outcomes in the Core Curriculum (SLOs), services offered by Career Service Center, teaching, courses offered, grade distribution, and use of technology; course availability and core curriculum/general education, and courses offered as majors.

In conducting these survey studies, the Section aimed to assess QU's effectiveness by improving its undergraduate and graduate education through the measurement of the KPIs that are associated with the strategic plans of respective academic and non-academic units, providing relevant data to accreditation agencies, as well as ensuring quality standards and best practice. The results of survey studies are shared and discussed with the Institutional Effectiveness Committee (IEC) and data owners to develop actions for improving areas that had not achieved the required target.

During the academic year, the Survey Section continued to provide requested support to a number of QU offices and departments for various services such as survey question writing, web surveys, administration, and analysis of the data of survey results. It also provided assistance to QU researchers and graduate students in selecting the appropriate research samples for their studies.





During AY 2014-15, the Section completed the new faculty satisfaction survey AY 2014-15, in addition to the preparation of the analysis reports of the Student Satisfaction Survey, Senior Satisfaction Survey, Employee Exit Survey, and Employer Satisfaction Pilot Study which were conducted during Spring 2013-2014. In addition, a statistical report was also completed on "High School Students' Plans for University Study and Their Perceptions of Qatar University".

Surveys that were revised and implemented by the Section during the academic year were:

New Faculty Satisfaction Survey

**Employer Survey** 

Senior Satisfaction Survey

Graduate Students Satisfaction Survey

Undergraduate Alumni Satisfaction Survey

Graduate Alumni Satisfaction Survey

Administrative Services Satisfaction Survey

Faculty Satisfaction Survey

Two readymade surveys -- Faculty Survey of Student Engagement (FSSE), and National Survey of Student Engagement (NSSE) -- were customized according to QU needs, translated, revised by data owners and implemented.

The Institutional Data Section accomplished a number of institution-wide surveys aimed at enhancing the operations of the academic environment and the development of the university's activities and services. An important study conducted in the academic year by the Section was the update of the Student Enrolment Projection Model that included a 10-year projection.

Two studies were completed that were targeted to new admits to QU, that is, those entering programs that are offered in Arabic, and non-registering admits for Fall 2014. Other studies included the Grade Distribution Analysis and the Faculty Performance Annual Report.

Reports related to students and faculty were completed in the academic year to serve as key references for institutional and resource data to benefit major and strategic decision-making for QU. They included University Sail (Report on QU KPIs); Semester Analysis (for Fall, Spring and Summer); Book of Trends (for 5 years); Average Class Size (for Fall and Spring); Faculty Workload; and Faculty Profile.

# ADMINISTRATIVE AFFAIRS

Administrative units within QU provide critical support to the organization's day-to-day running and to its academic and research landscape for the benefit of the QU community in a number of areas: Campus Facilities, Information Technology, Health Services, External Relations, and more.

During the academic year, campus facilities were enhanced with added parking areas, traffic safety procedures, fire safety processes, the ongoing establishment of a rail station, and continued construction of student halls and staff housing.

Through the Information Technology Services (ITS) department, IT resources and services were further improved during the academic year, including the establishment of a disaster recovery data center and an "anytime, anywhere" facility that benefit students, faculty and staff alike.

Establishing a powerful and secure centralized data center facilitated the consolidation of QU servers towards maximising efficiencies across the QU community. Notably, QU is the first educational institution in the Middle East to deploy an SDN (software defined networking) architecture for its data center, giving the university the flexibility to respond to unforeseen events and reducing risk to its data.

The "anytime, anywhere" facility is a flexible, IT platform designed to meet the online access demands of students and faculty in an anytime-learning environment.

The QU community was also provided with Tsawaq Day in October 2014, a day selected to shed light on a recent e-Procurement service, an online shopping service that delivers "business process automation solutions to enable greater visibility and compliance organization-wide to help end-users gain control, optimize efficiencies, and reduce spending". The initiative was led by QU's Procurement and Administrative Services Departments.

During the year, the Finance
Department extended its online
payment resources by launching the
E-commerce platform. This application
is considered a valuable addition to the

community, especially for individuals involved in training and educational programs at QU. The department also collaborated with Qatar National Bank to launch the "Electronic Fund Transfer" to benefit QU suppliers, replacing the previous tedious paper work process.

In support of building students' skills and competencies, the Finance and Human Resources Departments provided access to their internships programs to students at locations within and outside QU. These opportunities enrich students learning with handson experience and decision-making in workplace environments. 18 students successfully completed the Program during the academic year. The Finance Department aims at increasing the number of students who will benefit from the programs.

Through the External Relations
Department, the university's profile
and image as a leading institution of
academic and research excellence was
further enhanced during the academic
year through a wide range of duallanguage media forums highlighting
QU Key Communication Messages
such as press releases, editorials,
news features, newsrooms, President's
Newsletter, Campus Life, QU TV, QU
at a Glance, the Annual Report, and
more, including its Facebook, Twitter,
LinkedIn, YouTube, Instagram and
Google+ accounts.

The Department's Social Media Unit (SMU) continued its expansion in terms of reach to local and international online users, along with its ongoing content development. The Unit has been a focal point for collaboration with a wide range of entities at QU including Student Help Desk, and Campus Facilities Department, to name a few. It also provided a number of instructional forums, delivering a total of 10 training activities to 8 different departments/ sections at QU. During the academic year, QU Twitter account became the most followed among other QU SM platforms, with Facebook coming second.

The Department also facilitated the ongoing institutional dialogue on academic ranking by organizing and hosting the Times Higher Education MENA Universities Summit on February 23-25 2015 and the 5th QS

MAPLE (Middle East and North Africa Professional Leaders in Education) conference on May 5-7 of the same year. It also participated in a number of profile-raising events abroad such as the IREG Observatory on Academic Ranking and Excellence in Denmark, and the QS Arab Region Universities Ranking 2015 in Dubai, both in June 2015.

Notably, during the IREG conference, QU was presented with full membership, joining a list of 40 members comprising universities, higher education institutes and quality assurance and rankings organizations from around the world. In the Dubai event, QU was ranked 11th among 100 top universities in the Middle East, Asia and MENA regions.

In an exercise to gauge the perception of QU in the local community, the Department collaborated with the Social and Economic Survey Research Institute (SESRI) on a survey in which parents and high school students participated. Results indicated 67% of the university students expressed their agreement that QU is one of the pioneering institutions of higher education in MENA while 74% of parents agreed with the students and also expressed their overall satisfaction with QU.

During the academic year, led by the Campus Facilities Department, parking areas were expanded with the addition of 95 parking bays to add to the 510-vehicle parking bay established in 2012. A multi-level parking facility is planned for 2017, which will house 2500 cars. In total, QU will provide parking for 8150 cars in the near future. Traffic safety procedures were also stepped up to facilitate vehicle users and pedestrians around the campus.

Construction began in May 2015 to install a rail station at QU as part of developments led by Qatar Rail to enhance transport services for the FIFA World Cup 2022 and other top international sporting events. Construction also continues on student halls, a dedicated Student Center, and faculty and staff housing as the university moves towards

becoming a collegial campus and one that will serve to bring the QU community together. New colleges of Law, Pharmacy and Medicine are also underway as is the new building for Central Stores.

In its ongoing collaboration efforts with external partners in support of its academic and research environment, QU was commissioned by the Ministry of Information and Communications Technology (ICTQatar) to initiate a project

"Integrating Arab e-Infrastructure in a Global Environment". The project, designed to create a communication platform between research and education, is in line with the country's strategies towards building a knowledge-based economy. It will be conducted through a QU initiative -- Qatar National Research and Education Network (QNREN) -- an independent, government-supported forum based on international standards and best practices, that will serve all research and education stakeholders in Qatar.





#### **LIBRARY**

In the academic year, QU Library continued to provide optimum services and resources to the QU community and the wider Qatari society. In supporting the academic and research environment at the organization, the Library established the Institutional Repository QSpace, added new databases and e-resources, hosted a number of instructional forums, and advanced its partnership with organizations in Qatar.

The institutional repository, launched in May 2015, was designed to store, preserve and provide access to QU publications and theses. It houses faculty publications as well as graduate students' theses. The library collaborates with faculty members to promote awareness about the resource and encourages self-submission of research output that will be made available online.

During the academic year, the library continued to acquire databases and e-resources that support the curricula taught at QU. It avails 148 databases to the QU community of which 21 are through the Qatar National Library institutional access.

32,648 print and electronic titles were added between March 2014 and May 2015, bringing the Library collection to 350,155, as follows:

Language	# of titles
Arabic Print	72,463
Arabic eBook and Other Format	16,672
English Print	74,355
English eBook and Other Format	175,606
Other Language Print	1,191
Other Language eBook and Other Formats	9,868
TOTAL	350,155

In its efforts to advance information literacy within the academic environment, the Library partnered with QU colleges and departments to provide sessions on using the databases and the library collections in line with students' research needs. A total of 263 sessions were provided for 6646 attendees during the academic year.

Instructional forums held during the year included:

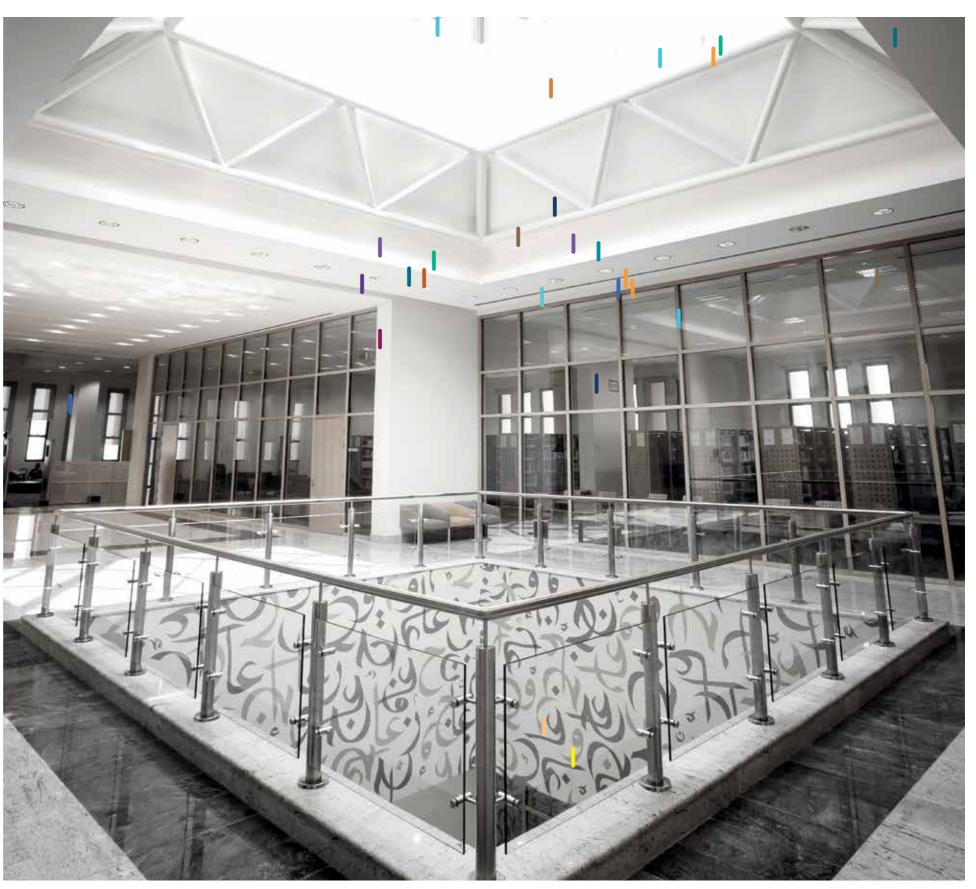
Enhancing the collaboration between all libraries in the State of Qatar. In collaboration with the Police Training Institute, a 2-day conference was held at QU in March 2015 on enhancing the role of the library and finding means of collaboration between academic, school and public libraries. It was attended by representatives from ministries, governmental agencies, school libraries, the national libraries and other constituencies.

Impact of Open Access Resources on Health Sciences Libraries was held on December 8. It engaged QU librarians and covered traditional journal publication models versus open access journal models, the advantages of open access archiving as well as current trends and changes in research patterns.

Bibliometrics; Principles, Use, and Indicators – a 2-day workshop for the QU community and librarians in Qatar on bibliometrics and journals' impact factor. The workshop covered the principles of bibliometrics as well as data selection, collection, and indexing; the role of bibliometrics in research evaluation; benchmarking a university against peer institutions and global, regional, and national averages. The workshop also addressed university rankings with focus on the various rankings data and weighting schemes.

Modern Technologies in Library Public Services -- QU librarians conducted a training session in November 2014 for librarians at the Ministry of Interior Police Training Institute, covering Library Research Guides – LibGuides, Virtual Reference Services – LibAnswers and LibChat, as well as English and Arabic electronic databases.

Library members participated in the Copyright Symposium hosted by Weill Cornell Medical College in Qatar (WCMC-Q) on April 21, 2015, with one presenting on copyright basics such as key concepts, fair use and education, limits of fair use, creative commons licenses, digital rights management, plagiarism and academic integrity vs. copyright infringement, and eResources.



### BIOMEDICAL RESEARCH CENTER (BRC)

Established in September 2014, the Center promotes a community-driven focus on research, training, and services in applied and basic biomedical research in three major areas: metabolic diseases (chronic non-communicable diseases), namely cardiovascular diseases, Type 2 diabetes, obesity and cancer; epidemiology and infectious diseases; and drug discovery, development and analysis.

The Center's facilities also provide support for biomedical researchers within QU and the wider community and foster scientific research and health improvement. It also serves a core role in supporting various postgraduate programs in the field of biomedical, health and medical research at QU such as the accredited Biomedical Sciences Program at the College of Arts and Sciences (CAS), the College of Pharmacy (CPH), and the newly established College of Medicine (CMED).

The Center will seek collaboration with national partners and stakeholders such as Supreme Council of Health (SCH), Hamad Medical Corporation (HMC), Weill Cornell Medical College in Qatar (WCMC-Q), Sidra Medical and Research Center, Qatar Biomedical Research Institute (QBRI), Qatar Cardiovascular Research Center (QCRC) and Anti-Doping Lab Qatar (ADL-Q).

During the academic year, BRC enjoyed a number of achievements which included appointment of the Director, several faculty, and technical and admin staff, and an MOU with Qatar Cardiovascular Research Center (QCRC).

Under the new Director, the work of the Center will be aligned with QU's research priorities on energy, environment and resource sustainability; social change and identity; population, health and wellness; and information, communication & technologies.

At the start of the academic year, the Center increased its staff body, appointing an assistant professor in metabolic diseases and one in the field of infectious diseases, a lab manager, two post-doctoral fellows, two lab technicians and an administration assistant.

The partnership with QCRC serves to advance the Center's momentum to achieve its objective of becoming a model of excellence in interdisciplinary biomedical research that advances knowledge and improves health in Qatar and beyond through the establishment of platform technology and core facilities. It also consolidates and further empowers the Center's vision to leverage QU's internal human and infrastructural resources and the increasing network of organizations in Qatar working in biomedical research.

The Center also signed an agreement with the Supreme Council of Health to conduct virology research on un-





identified / emerging infectious diseases. Another agreement is in process with Hamad Medical Corporation's laboratory medicine and pathology department. These agreements will provide students and researchers with the tools and resources to be engaged in science and research with the view to pursuing a university career in these areas, and emerge as the next leaders of the country's development.

Since September 2014, a range of core facilities were established including zebrafish and tissue/cell culture lab facilities and state-of-the-art infrastructure equipment such as the advance image core facility equipped with confocal microscope and fluorescence microscope. Equipment for use in molecular biology studies and research such as a second-generation sequencer are included in the Center's infrastructure equipment requirement for 2015-2016.

BRC also recorded a successful and productive year in research as follows:

Award for Best Faculty Poster; winner in the student track at the Material Sciences and Engineering Symposium 2015; and the Arab Pediatric Medical Research Award at the Arab Pediatric Medical Congress-Dubai-UAE.

Despite its newness, the Center achieved 10 peer-reviewed published papers by its researchers, the majority of which were in journals with an impact factor higher than 2.

Ongoing projects

- Gold Nanoparticles-based Assays for Direct and Cost Effective of High Burden
- Seroprevalence of Anti-Hepatitis E (HEV) Antibodies among Blood Donors in Qatar and Performance Evaluation of five Commercial Kits for Detecting Anti-HEV Antibodies.
- Detection of Legionella pneumophila in Qatar Cooling System Spray Vaccine against Avian Colibacillosis (Escherichia coli).
- Intestinal parasitic infections among immigrant and resident workers in Qatar.
- Resuscitation from trauma and hemorrhagic shock by direct intracellular energy delivery.
- The peritoneal response to the sterile clinical dialysis solution.
- Lipoxygenase Pathway in Retinal Angiogenesis.
- Systems approach towards diabetes research using molecular profiling tools.

Zebrafish as a tool to study the role of cardiac myosin binding protein C (MYBPC3) mutations during hypertrophic cardiomyopathy: mechanisms of disease (in collaboration with QF-QCRC)

The Center's future plans include the completion of the biosafety level-3 facility, expansion of its infrastructure including core facilities for stem cells research and the establishment of a specialized laboratory for genome and meta-genome research with the latest equipment such as Ten X NGS.

BRC will also advance its efforts towards building student competencies through workshops, seminars, theoretical lectures and practical lessons; supporting interdisciplinary and translational research; and proactively seeking strategic partnership and collaboration with reputable institutions at home and abroad as well as with colleges and research centers within QU.

An important goal on the Center's horizon is the achievement of accreditation by

# CENTER FOR ADVANCED MATERIALS (CAM)



Qatar University A

The Center had a very successful year in 2014-15, which included a professorial chair appointment, agreements with industry and several international academic institutions, strong faculty research output, and the submission of 3 patents on scientific research.

The year also saw its highly-popular high-school program Al Bairaq enter its 9th year and achieve the nomination among the finalists for the 2015 WISE (World Innovation Summit of Education) Award.

The Professorial Chair in Environmental Materials came as part of an agreement between CAM and QAFAC signed in October 2014. In the terms of the agreement, QU will provide consultation services to QAFAC, as well as training courses for selected QAFAC employees, while QAFAC will fund the Chair position during the three-year term.

During the year, CAM signed MOUs with Fudan University (Republ China) and Akron University (USA), and an R&D contract in the area of corrosion prevention in wet sour gas pipelines with Qatar Shell and Imperial College London. The Center also developed cooperative and collaborative work with the industrial sectors in Qatar, namely Qatalum, QAPCO, QAFAC, QVC, Qatar Shell, QChem, and with world renowned universities such as Imperial College, City University (Hong Kong), University of California (USA), and others

The Center was successful in achieving 16 NPRP and UREP grants, 6 QU internal grants, and 7 industrial grants.

CAM faculty and researchers published more than 80 peer-reviewed research papers in international journals and 5 book chapters, an increase of about 76% from last year.

During the year, CAM conducted a number of instructional forums that included 3 industry-based workshops for selected employees, and 18 seminars delivered by CAM staff and international presenters. The Center also presented a number of conferences combining science and culture such as "When Archaeology, History and Science Meet".

In its engagement with the wider community, CAM executed over 500 services to industry-based partners in Qatar, and conducted 4291 scientific analyses for 541 clients.

The Center also took a supervisory role in guiding and supporting QU students' theses.

In the Al-Bairaq program, CAM provided 51 workshops and training courses for 826 students from 39 schools across Qatar, during the academic year 2014-2015, covering 79.6% of the independent secondary schools in Qatar. CAM also delivered four successful training workshops to 78 students from 3 primary schools.

In its nomination as a finalist in the 2015 WISE Award, Al Bairaq was among 15 selected projects from 12 countries – it was nominated for its innovative solutions to education challenges and positive social impact.

# CENTER FOR ENERGY AND SUSTAINABILITY LAW (CESI)

During the academic year, the Center at College of Law continued to build on its goal to act as the Middle East's first permanent 'think tank' dedicated to energy and environmental law, offering a platform of interaction between industry, academia and government agencies, and to advance its mission to find solutions to the challenges of increasing energy demand, associated environmental degradation and calls for sustainability in the regional and global context.

The Center successfully achieved a USD 34,000 dollars grant from Qatar Petroleum Development. It organized two important seminars on Energy Dispute Resolution and on Energy Security and delivered two continuing education training sessions.

The Center is in the process of finalising an institutional collaboration with the Center for Global Energy, International Arbitration and Environmental Law at the University of Texas at Austin. In addition, it is developing collaborations with the Maguire Energy Institute at the Cox Business School at Southern Methodist University in Dallas, Texas, the McCombs School of Business at the University of Texas at Austin and the Price Business School at the University of Oklahoma, Oklahoma.

### CENTER FOR ENTREPRENEURSHIP (CFE)

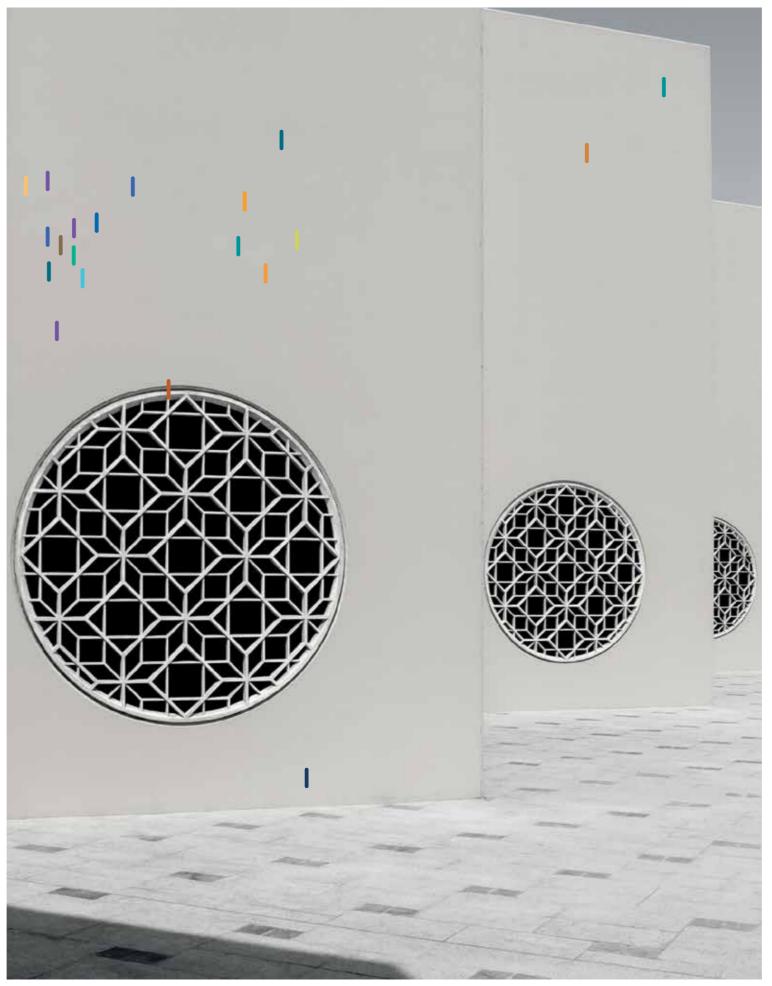
During the academic year, CBE's center of excellence continued its mission of linking academic life with business reality through training, incubation, research and consultation. Through a number of forums detailed below, the Center engaged CBE and other QU students, faculty, staff, and members of the wider community on various aspects of setting up a business and becoming successful entrepreneurs.

Innovation Day, May 2015 was designed to promote innovation and create awareness about the crucial role of innovation in today's economy and society. Attendants came from the QU community and outside of it. The event featured experts from QU as well as a number of companies presenting on innovation in their respective areas and its importance to business continuity and growth. TOTAL Qatar presented a business case to engage solutions and ideas from students, with the best ideas awarded by TOTAL and QU.

Training program "From Innovation to Commercialization", March 2015. This is part of the Center's pre-incubation process aimed at preparing students, faculty and staff members to join the Business Incubator in order to implement their business plans.

Startup Weekend Doha, November 2014. This was organized in collaboration with ICTQatar, bringing together developers, designers, marketers, product managers and startup enthusiasts to share ideas, form teams, build products, and launch startups.

The Seminar on "Entrepreneurial Culture among Youth" - September 2014 - promoted the culture of entrepreneurship and highlighted the role of QU colleges in creating awareness and developing students' entrepreneurial skills.



### CENTER FOR HUMANITIES AND SOCIAL SCIENCES (CHSS)

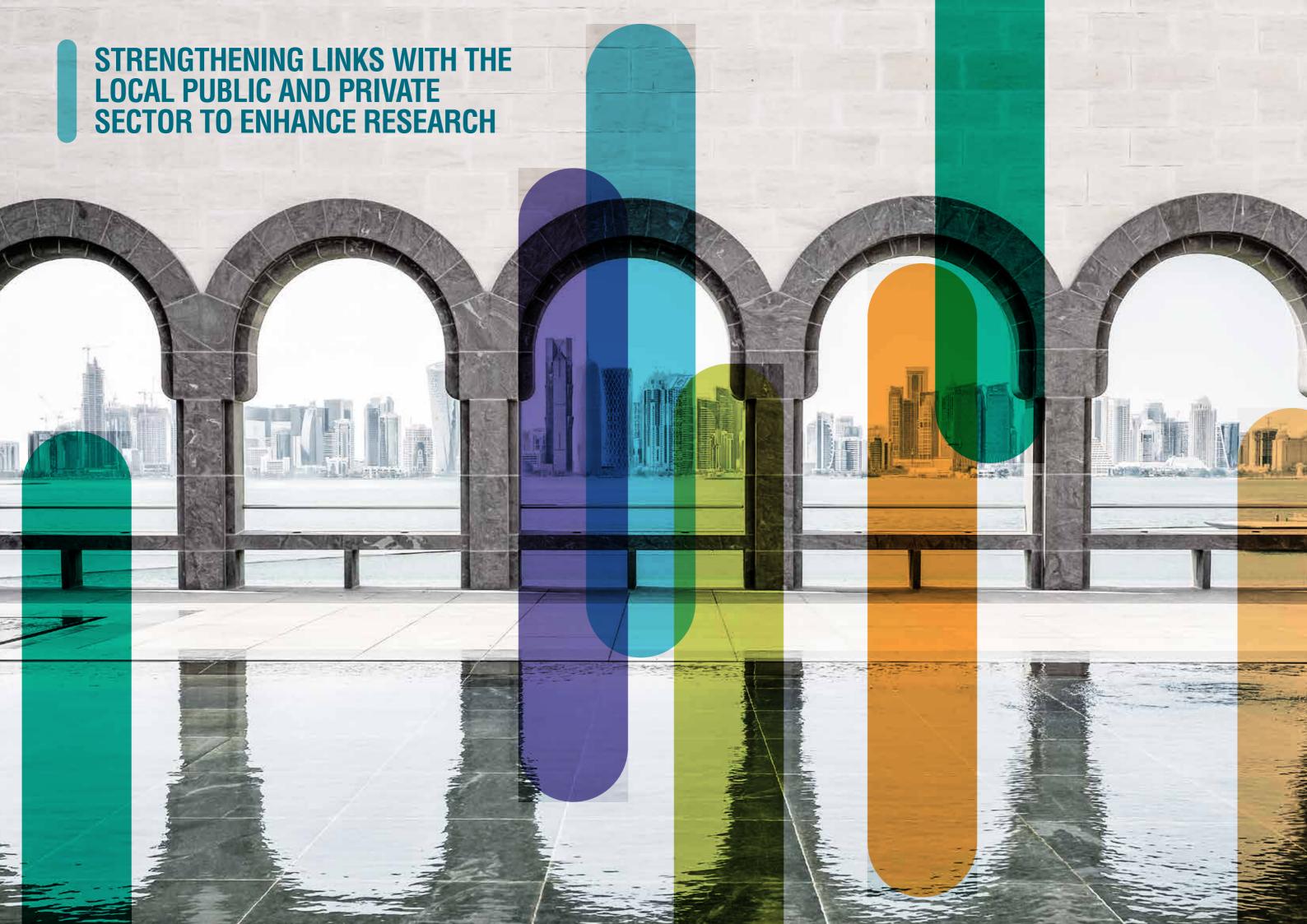
Established in 2014 at CAS, the Center is one of the youngest of the research centers at the organization. In the academic year, it pursued a number of initiatives such as developing inter-disciplinary research projects, organizing instructional workshops, and establishing nine interdisciplinary research groups comprising faculty members.

The Center coordinated two research projects that are aligned with the research priorities stated in the organization's roadmap. One addressed Social Change and Identity relating to issues of modernization, national identity and society; the other was related to Islam and Contemporary Issues.

Working with CAS faculty and other research centers, CHSS made strong progress in advancing the development of interdisciplinary projects and initiatives that are geared towards making a sustainable impact on critical socio-cultural issues facing the society.

During the year, the Center sponsored three workshops at QU on Implementing and Evaluating Screening, Brief Intervention and Referral to Treatment (SBIRT) for Unhealthy Habits; Surveys Fit for Purpose; and Writing for Peer-Reviewed Journals: Tips from an Editor. The latter was targeted to CAS faculty as part of the Center's efforts to provide support and guidance on the preparation of proposals for major research grants.

In establishing the inter-disciplinary groups, the Center signaled its commitment to addressing the needs and aspirations of the society and external stakeholders, as well as its drive to advance research synergy within the college. Topics include: History, Archaeology and Heritage Studies; Oral History and Cultural Studies; Population and Migration Studies; Woman and the Family Studies; Mental Health Studies; Civil Society Studies; Language, Literature and Identity; Sport Science and Health Issues; and International Affairs and Security Issues.



### CENTER FOR SUSTAINABLE DEVELOPMENT (CSD)



The Center for Sustainable Development, in its first year of inception, sought to establish itself as a hub for research and development of new ideas relevant to Qatar and Gulf countries, incorporating an holistic vision and approach on policy, planning, environment and economics.

During the academic year, the Center continued to advance interdisciplinary research to achieve a balance between human development and conserving natural resources.

With the needs of the society at the core of its approaches, the Center has given priority to building links with the key actors and stakeholders in business, government, education, and the non-profit sector. It has also sought to promote new technologies through environmental consulting and expertise incorporating the processes of planning, industry, business and finance that are applicable to the needs of public organizations, governmental institutions and the private sector

CSD has also given feeting to the use of two types of plan

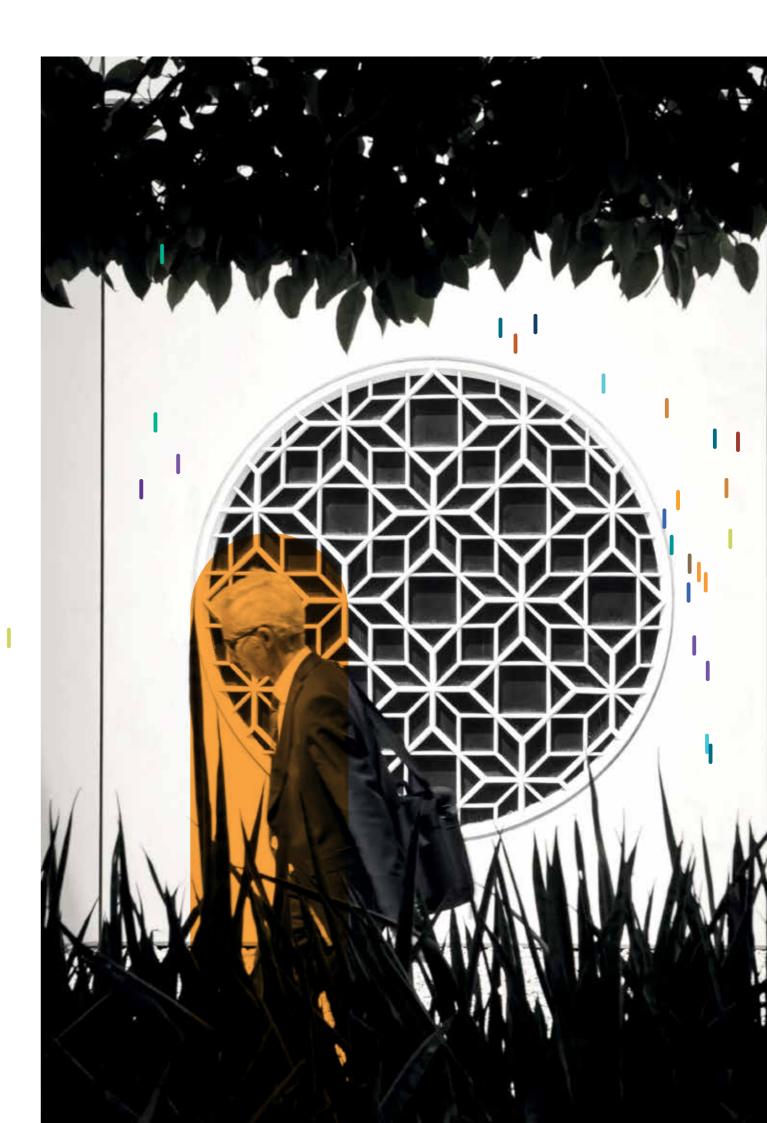
CSD has also given focus to the use of two types of plants -- microalgae and halophytes – with the aim to gather information on the relevance of such plant groups in the context of sustainable development and food production. This is to address the issue of the severe scarcity of water in Qatar that makes conventional agriculture very difficult, and to promote the non-conventional method of biomass production using brackish/seawater irrigation to achieve a positive carbon balance and the use of the biomass for fodder, forage, food, biofuel, biodiesel, nutraceuticals and pharmaceuticals.

During the academic year, CSD held a number of forums such as a major conference on Microalgal Technologies and Applications and a seminar entitled Biodiversity Conservation. The CSD also organized an awareness field trip in April 2015 to promote Qatar's mangrove ecosystems and their importance to its coastal environment.

About 150 male and female students from CAS and other QU colleges and the Environment Club visited Purple Island at Al Dakheera to be oriented on mangrove ecology, biodiversity conservation and restoration, and the importance of carbon sequestration to mitigate harmful effects on ecosystems. A workshop delivered by the Center's Qatar Shell Professorial Chair in Sustainable Development ahead of the visit engaged the students on the "Role of mangroves in sustainable development in Qatar".

During the visit to the island, the students gained valuable information on the major role mangroves play in climate change mitigation and protection against coastal erosion. They were shown mangrove vegetation, fish, birds, and salt marshes, among others, during their 75-minute walk around the island.

The students also learned about the negative impact of human behavior on the island's animal and plant life which are being destroyed or damaged due to coastal development projects, oil spillage, pollution, and littering. They also collected litter to contribute to activities to protect and conserve the island's ecosystem and habitats.



### CENTRAL LABORATORIES UNIT (CLU)

During the academic year, CLU continued to advance its goal to enhance scientific research activities, by maximizing student success in becoming competent graduates by providing high quality training and analytical services and upgrading and expanding the overall research infrastructure, including core facilities, to meet research needs.

The Unit employs its best efforts to constantly improve the quality of its analytical testing, and strives to extend optimum services to the scientific and educational entities within the State of Qatar. Additionally, it continuously optimizes its performance to uphold the ISO 17025 criteria and maintain its accreditation with the American Association of Laboratory Accreditation (A2LA) which was first achieved in the year 2010. A series of audits over the 4 years that followed the initial accreditation resulted in the ISO/IEC 17025 accreditation in 2014 -- the most important standard for calibration and testing laboratories around the world. It is also used in developing the competence of testing and calibration laboratories.

CLU succeeded in the renewal of A2LA accreditation of two methods and an addition of a new method of analysis. Preparations are underway to add two new methods to its certification.

A pioneer in the field of Electron Microscopy (EM) services in the country, CLU currently operates four state-of-the-art Electron Microscopes, two Transmission Electron Microscopes (TEM) and 2 Scanning Electron Microscopes (SEM) ). To date, the Unit is the only lab offering TEM imaging and analysis to the entire scientific community in Qatar, as well as to the educational, medical and industrial entities.

Other equipment at CLU includes two Inductively Coupled Plasma Mass Spectrometers (ICP-MS) and (ICP-OES) to conduct Trace Element Analysis, and CHNS/O, TOC, FTIR for Organic Elemental Analysis and Infrared Spectrophotometry.

The Unit also conducts Chromatography and Thermal Analysis that include Liquid Chromatography (LC-MS), Gas Chromatography (GC- MS), Ion Chromatography (IC), Ultraperformance Liquid Chromatography (UPLC), Thermal Gravimetric Analysis (TGA) and Differential Scanning Colorimetry (DSC).

Soon to be added to its arsenal of equipment are a Nuclear Magnetic Resonance analyzer (NMR 600 MHz), a Raman Spectral analyzer and a Liquid Nitrogen Generator, which will add value to the Unit by offering enhanced capabilities to its stakeholders.

CLU also hosts and manages the central chemical and glassware storage facility and is responsible for supplying the chemical and glassware needs of all QU colleges and research centers to facilitate their research efforts.

During 2014, the Unit analyzed a total of 6175 research samples, and 4000 in five months during 2015, more than 120% more over 2013-2014 and an increase of 250% from 2012-2013. This highlights the quality and strength of CLU services.

CLU assistance for research projects that were supported by various research funds was provided free of charge. During the academic year, a total of 29 NPRP projects was serviced by the Unit – 9 for College of Engineering (CENG), 7 for College of Arts & Sciences (CAS), 10 for several QU research centers, and 3 for College of Pharmacy (CPH).

The Unit also serviced 5 UREP projects -- 2 CAS, 2 Center for Advanced Materials (CAM) and 1 CPH – as well as 7 internal projects.

CLU also supported projects from external organizations such as Texas A&M University at Qatar, Qatar Foundation and ExxonMobil Qatar. Collaboration with Texas A & M University resulted in gaining two NPRPs (NPRPX-095-1-024 and NPRP 8-1344-1-246) in the amount of US\$ 4 million.

During the academic year, the Unit provided services for a number of students, faculty and researchers from CAS, CPH, CAM, CENG, and the Gas Processing Center (GPC) for their respective research activities.



### ENVIRONMENTAL SCIENCE CENTER (ESC)

(formerly Environmental Studies Center)

The Environmental Science Center (ESC) had an active and productive year, and recorded a number of achievements in relation to research and collaborative partnerships, as well as scientific workshops and training.

The academic year saw the Center change its name from Environmental Studies Center to Environmental Science Center and appointed a new director who joined in December 2014. The Center also underwent a restructuring exercise which places greater emphasis on research, and introduced a new strategic marine research strategy.

The Center now comprises three research clusters each led by a science leader -- Marine Science (comprising Marine Chemistry, Marine Biology and Marine Physics); Earth & Terrestrial Science Cluster; and Atmospheric Science.

The name change is to better reflect the ESC's scientific and research endeavors. This, combined with the research clusters, provides the Center with strengthened capabilities in the environmental sciences that best serve QU's research plans and objectives, and the needs of the State of Qatar.

During the academic year, the Center secured several internal grants to fund projects ranging from marine science to sustainable urban planning. A grant to support research on atmospheric science and air quality impacts in Qatar was also secured under the NPRP. The Center continues to engage in a range of science projects funded by QU, Qatar National Research Fund, as well as its private sector partners including Exxon Mobil, Maersk Oil and Qatar Petroleum.

An important project on the impact of contaminants on the Gulf-pearl oyster, Pinctada radiate, funded by Maersk Oil, was also completed. In recognition of the historical and cultural importance of the Gulf-pearl oyster to Qatar, the Center embarked on a strategic research program to investigate and conserve this important species.

Key new research developments for the ESC over the academic year included the establishment of an MOU with the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) of the UK Government's Department of Environment, Food and Rural Affairs (DEFRA), and a 5-year renewal of the MOU with Bangor University UK.

The ESC also renewed its contractual agreement with Qatar Petroleum to study the population dynamics of the Hawksbill Turtle in Qatar's marine environment. This species of turtle is listed as critically endangered by the United Nations. ID tagging and tracking of the turtles by the ESC continued during the academic year as part of the Center's conservation and monitoring activities.

# Marine and atmospheric research continued to be supported by the Center's world-class marine research vessel, RV Janan.

The vessel was deployed on numerous occasions throughout the year for research, student training, sample collection, and collaborative exercises. In February 2015, students from QU College of Arts & Sciences' Department of Biological & Environmental Sciences benefited from a scientific journey on Janan as part of research for their graduation projects. Training was also provided to ESC partners and stakeholders: the Ministry of Environment's Fisheries Department, Exxon Mobil, Maersk Oil, and Qatar Petroleum.

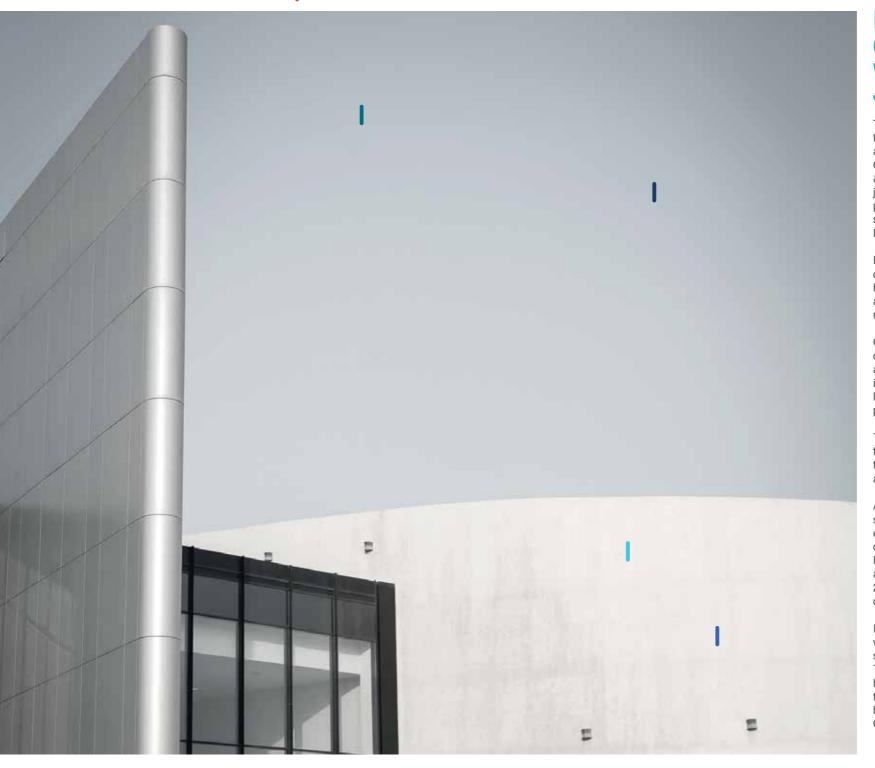
ESC researchers published several scientific journal articles on a range of topics such as the phenomenon of seasonal hypoxia (oxygen depletion) in the Arabian Gulf, and an analytical assessment of heavy metal contamination in marine sediments in Qatar's nearshore environment.

Other notable achievements for the ESC included the hosting of an international workshop, supporting QU undergraduate and graduate student research, conducting environmental impact assessments for various organizations, engaging local high schools on marine conservation projects, and providing professional development forums.

The international workshop, held in June 2015, addressed the taxonomy of marine sponges which is expected to lead to new zoological discoveries in these enigmatic marine animals in Qatar's marine environment.

As part of its ongoing consultation with partners and stakeholders, the Center conducted assessments of the environmental impact of marine infrastructure developments on Qatar's coastline on behalf of organizations including IExxon Mobil, Maersk Oil and Qatar Petroleum. The Center also provided a professional development workshop in May 2015 for members of the Ministry of Environment on air quality assessment and monitoring techniques for Qatar.

In a schools outreach initiative, Hawksbill Turtle conservation was promoted by Center researchers to students of local schools in June 2015 in collaboration with Qatar Petroleum. This included visits to Fuwairit Beach to witness turtle eggs hatching. The students also participated in the release of the hatchlings into the ocean, with the event being filmed by Qatar Television as part of a series of documentaries on Qatar's marine environment.



# GAS PROCESSING CENTER (GPC)

The Center recorded a number of accomplishments during the academic vear, attesting to its increasing role as a key partner with the industrial sector and the community at large. Highlights of the academic year included a new research direction 'Upstream Processing', agreements with AKina (USA) and SNF Floerger (France), receipt and commissioning of two pilot plants, and ISO 17025:2005 accreditation of its labs. The Center also successfully held the 4th edition of its International Gas Processing Symposium, and its sixth "Gasna" competition for schools. It also increased its faculty body with a number of new professorial appointments.

In adding 'Upstream Processing' to its research efforts, the GPC included enhanced oil recovery (EOR), improved oil recovery (IOR), flow assurance (hydrate), drilling fluid formulation and well's stimulations. Enhanced oil recovery (EOR) and improved oil recovery (IOR) have become increasingly important due to the growing energy demand and depleting oil reserves worldwide.

The main challenges for EOR in the Gulf are the high temperature and high water salinity in the carbonate reservoirs in the Gulf region. Hence, an agreement was signed between the Center and AKina, a leading company in this field, to develop new chemicals that can withstand such harsh conditions. The Center also signed an agreement with SNF Floerger, the leading company in polymers and polyelectrolytes production, to develop cost-effective polymers for effective water treatment.

The Center's 4th International Gas Processing Symposium held on October 26-27, 2014 drew the attendance of over 300 people including officials from the government, industry, academic, and business sectors, scientists, researchers, and university students. The symposium was an opportunity for participants to address the achievements and

challenges related to gas production and processing. The event was held under the patronage of Qatar Minister of Energy and Industry H.E. Dr Mohammed bin Saleh Al-Sada, and was themed Natural Gas and World's Energy Mix, with sponsorship by Qatar Petroleum, ExxonMobil, RasGas, QAFAC, Oryx GTL and Dolphin Energy. Keynote speakers at the 2-day program included top academics and representatives from University of California, ETH Zurich Institute of Process Engineering, University of Regina, Qatar Shell, and RasGas.

Another highlight was the Center's successful installation and commissioning of the Pilot Plants on Produced Water and Heat Exchanger.

The Produced Water Pilot Plant, the first of its kind in Qatar and the Gulf, was launched in February 2015 in cooperation with Maersk Oil Research and Technology Centre following an MOU signing between QU College of Engineering and the Research and Technology Centre. It focuses on identifying environmentfriendly solutions for produced water management in Qatar's Al Shaheen oil field to keep within the framework of the Qatar National Vision 2030. Additionally, it serves to advance QU's goal to become a leading research institution in produced water (PW) treatment driven by real-world industrial

The Heat Exchanger Pilot Plant was launched in June 2015 in cooperation with Qatar Fertilizer Company (QAFCO). The Plant studies seawater behavior in heat exchanger applications. It is part of an agreement signed between the two organizations in 2012 to enhance cooperation in areas related to energy systems and to develop teaching, academic research and training opportunities at the GPC and College of engineering (CENG). The agreement also included the establishment of a QAFCO Chair at GPC to develop an applied research program in the area of Energy Systems according to QAFCO needs.



## The accomplishment of ISO 17025:2005 accreditation of its labs was another highlight in the Center's academic year.

ISO 17025:2005 is the international standard for laboratory quality systems, and this recognition was a reflection of the GPC and QU's goal of attaining world–class facilities operating to best practices.

During the academic year, the GPC held the 6th edition of its highly popular Gasna (Our Gas) high school competition from December 2014 to March 2015. This year's event, sponsored by QAPCO, Dolphin Energy Limited, ConocoPhilips and ExxonMobil, drew teachers and students from 80 independent and international schools in Doha, and ended with a closing ceremony in March with the announcement of the winners and the distribution of trophies, prizes and certificates.

In keeping with its capacity to contribute to training and consultancy needs in Qatar, the Center organized a number of seminars and training courses. This included two technical training courses: Flow Assurance (oil and gas) course presented by experts from British Hydrodynamics Research Group (BHR), and a Natural Gas Processing course by an expert from the University of Regina, Canada. In addition, the Center organized 14 seminars conducted by local and international experts.

In its new faculty appointments and in line with the goals set in its strategic plan, the GPC appointed a QAFCO Professorial Chair in Chemical Processes, a research professor in Upstream Processing and Produced Water, and two research fellows in the area of Molecular Dynamics Simulations and Catalysis. These researchers will collaborate with their colleagues in the College of Engineering to develop and lead new research programs in their respective areas, as well as to contribute to the overall success of the GPC's strategic plan.

During the year, GPC faculty published 21 peer-reviewed papers in journals. Additionally, GPC members submitted one application for Intellectual Property (IP) to the USA Patent Office. The Center also has 9 running projects with industry and national, regional and international institutions as part of its research collaboration efforts outlined in its research plan.

### GULF STUDIES CENTER (GSC)

Since its establishment in 2014, the Center -- Desarat Al Khalij -- has built on its pioneering efforts to be an international forum for academic and policy discussion on the Arabian Gulf region, and to promote cutting-edge study and research on the region's development.

During the academic year, a new PhD program in Gulf Studies was launched in response to demand from students completing the MA program, and the general public.

The new program, the first-of-its-kind in the region, was designed to engage students in research on Gulf-related issues and prepare them to contribute specialist skills to professional sectors in Qatar in line with the country's ambitions towards a knowledge-based economy, and the goals and objectives stated in Qatar National Vision and the development strategies.

The inter-disciplinary 3-year degree program comprises disciplines from CAS departments of Humanities, International Affairs, English Literature and Linguistics with courses on the region's heritage, society, politics, economics, environment, media, international relations, and the energy industry.

The PhD program also forms part of the Center's mission to foster and develop local capacity of specialists and researchers to add their knowledge to various sectors in Qatar in response to the goals and objectives stated in Qatar National Vision and the development strategies.

During the academic year, the GSC conducted a wide range of forums that engaged students, faculty, partners, stakeholders and experts from Qatar, the region and beyond.

These included Perspectives on Middle East Studies; Sources of Tension in Afghanistan and Pakistan; Sectarian Fault lines after the Arab Spring; Creating Future Leaders; The Yemen Crisis; Iran's Nuclear Bargain: Regional Implications; and the Gender Symposium (in conjunction with Center for Humanities and Social Science (CHSS)).

A symposium on Overcoming Prejudices: Islam and the West, A Tale of Two Conflicting Cultures and Experiences held in May 2015 drew a number of distinguished researchers and international specialists from around the world to share ideas and observations on the current relationship between the two cultures.

The 2-day forum of sessions and workshops was held in collaboration with the Regional Office Gulf Studies of Konrad-Adenauer-Stiftung, (KAS), a Berlin-based political foundation and think-tank. Participants explored the growing situation of distrust and miscommunication between East and West, the interpretation of the limits to freedom of expression, the increased rise of radicalism throughout the Middle East as well as the motivations behind Europe's right wing movements, among other issues.

Part of the symposium was a panel discussion "What does it mean to be a young European Muslim?" by QU students and their counterparts from Europe sharing their personal experiences as well as the challenges they encountered as young Muslims.

Another symposium -- GCC Days:
The Gulf Cooperation Council States:
Role and Accomplishments -- was
organized at QU on the sideline of
the GCC Summit being held in Qatar
among the respective leaders in the
region. Students from across QU
colleges participated in the event that
drew top Gulf officials and over 250
experts and academics which included
a presentation by Secretary General
of the Gulf Cooperation Council for the
Arab States of the Gulf H.E. Dr Abdul
Latif bin Rashid Al Zayani on "The



Achievements of the GCC and the Benefits of the Gulf Citizen".

The students also took part in the GCC Poster Competition as part of the Center's efforts to advance students' knowledge of the importance of the Gulf region in the international arena and their future responsibility as the beneficiaries of the development, changes and progress taking place.

The Center hosted the launch of the report on Labour Migrants and Access to Justice published by the Middle East Centre of the London School of Economics and Political Science and in which three QU researchers participated, among a number from Qatar, the region and around the world.

The events were part of a series of collaborations carried out by the GSC in cooperation with international research institutes and regional partners to tackle critical socio-political and economic issues in the region, and point to the important role the Center plays in the dialogue on Gulf issues, aspirations, challenges and accomplishments.





#### KINDI CENTER

Throughout the academic year, the KINDI Center continued to position itself as a leader in research in the area of computer and information sciences and engineering in Qatar, and as a committed partner in the national goals towards a knowledge-based economy. Its work is developed in line with the Qatar National Research Strategy, QU research priorities outlined in its 5-year research roadmap (2013-2016), and the objectives detailed in Qatar National Vision 2030.

The KINDI Center conducts world-class research while serving the QU community as well as the Qatari society. It fosters quality computing research programs that tackle relevant issues, engages the organization's critical mass of researchers and students, and leverages existing local and international partnerships.

The broad research themes of the Center are embedded in its name, KINDI, an acronym for Knowledge Intelligence, Networked Data and Interdisciplinary research. "Kindi" is also the name of the renowned Muslim scientist (Abu Youssef Yaqoub Ibn Ishaaq Al-Kindi) who was known for his pioneering work in medicine and cryptography, which signify the two specific topics on which KINDI focuses within its broad research themes, namely cyber security and bio and health informatics.

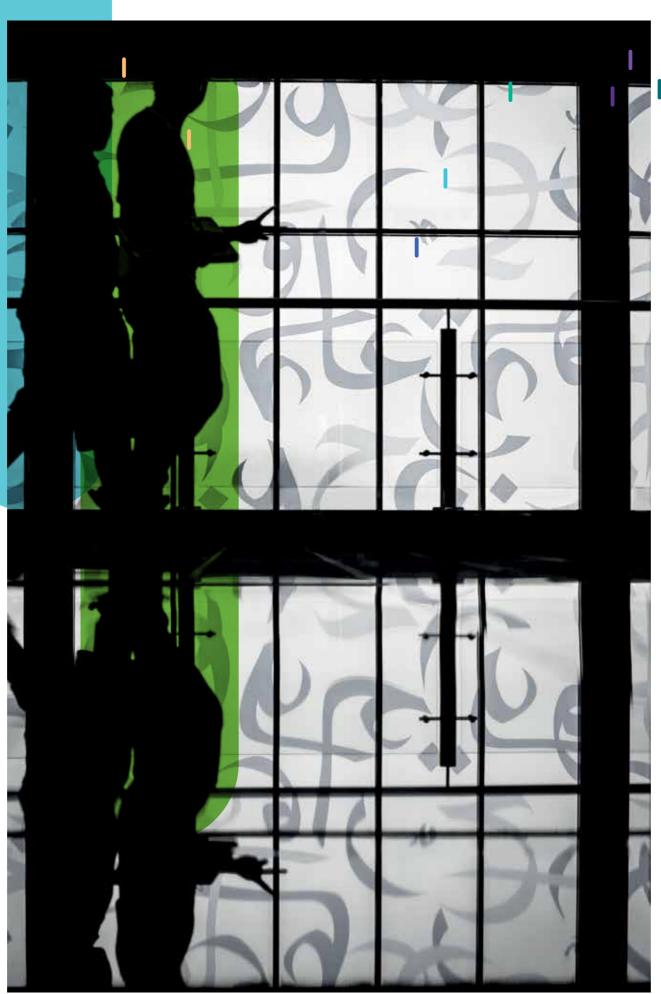
During the academic year, 10 KINDI research projects were in process, covering a range of topics under the Center's research themes with strong emphasis on topics in the area of cyber security, bio and health informatics, and interdisciplinary research, as listed under:

#### Cyber Security

- Private data management in the cloud
- Trusted computations in the cloud
- Automatic reasoning about compatibility of security policies
- Testing the security of randomness generation in web services
- Lattice-based post quantum cryptographic techniques
- Open online course on cyber security targeting regional audience

#### Bio and Health Informatics

- Digital pathology image analysis for computer-assisted diagnosis of cancer
- Mining for combinatorial expression of multiple proteins
- Robotic toys for Autistic children
- Assistive wheelchair for quadriplegic patients.
- Biomedical simulator design for EEG and ECG signals.
- Stroke related prognosis prediction.
- Biocloud: multi-cloud broker for bioinformatics applications





KINDI faculty were active and engaged in participating in research forums around the world and publishing their research results. 15 articles were published in international peer-reviewed journals, 20 papers were published in technical conferences, and three patent disclosures were submitted for evaluation. A research paper entitled "The Similarity-Aware Relational Intersect Database Operator" was awarded Best Paper in Proceedings of the 7th International Conference on the Similarity Search and Applications.

During the year, KINDI received an award under the NPRP Exceptional Proposal of the Qatar National Research Fund to develop a new secure computing model. This award category provides large-scale funding for innovative research projects that demonstrate unique potential and high impact. The funded project will develop a revolutionary computing model that enables an organization to outsource its IT requirements, for example, to the cloud, while guaranteeing the confidentiality of its data and the security of its computations.

Faculty research projects were also awarded under the 8th NPRP cycle. These projects address timely issues such as architectural approaches to protection against compromised system software, security risk modeling and assessment of cloud computing, and efficiently-reliable and privacy-preserving cloud data storage.

During the academic year, KINDI kick-started the development of its open online courses in cyber securities. These free online courses are tailored for the region in order to raise awareness about cyber security issues. This project is in collaboration with the Open University (UK) and is supported by the UK Global Cyber Security Capability Building Programme.

KINDI has supported and mentored the research work of seven graduate students and the project work of several undergraduate students at QU, enabling their involvement in various research projects at KINDI, as well as benefiting from its facilities

### A notable achievement was the graduation of the first PhD student in Qatar, which was celebrated at the end of the Spring 2015 semester.

The academic year also featured the establishment of the KINDI external advisory board comprising business, research, and community leaders in Qatar. The board's role is to provide strategic advice to help refine KINDI's mission and research programs, align its research agenda with the national needs and strategies, and strengthen community engagement by stimulating a broad, community-oriented perspective for KINDI's research activities.

KINDI's collaboration activities with governmental, academic and industrial partners yielded a series of seminars and workshops throughout the academic year. 26 such forums were held, featuring experts from QU and other national, regional and international institutions such as Qatar Foundation, Al-Jazeera, MADA Qatar Assistive Technology Center, Cairo University, Open University, University of Salamanca, and Northeastern University.

KINDI's research and collaborative activities continue to be supported by a number of research groups and a set of services, that include physical infrastructure, administrative and technical support, and a cloud computing infrastructure. This year saw the establishment of a high-performance computing infrastructure that is dedicated to supporting research activities in Qatar University.

### LABORATORY ANIMAL RESEARCH CENTER (LARC)

Still in its infancy as the first and only such center in Qatar, LARC continued to enhance its facilities and equipment to ensure the quality of its research and the services it provides to the wider community in support of Qatar's biomedical research agenda towards building human capacity in this field.

#### These included:

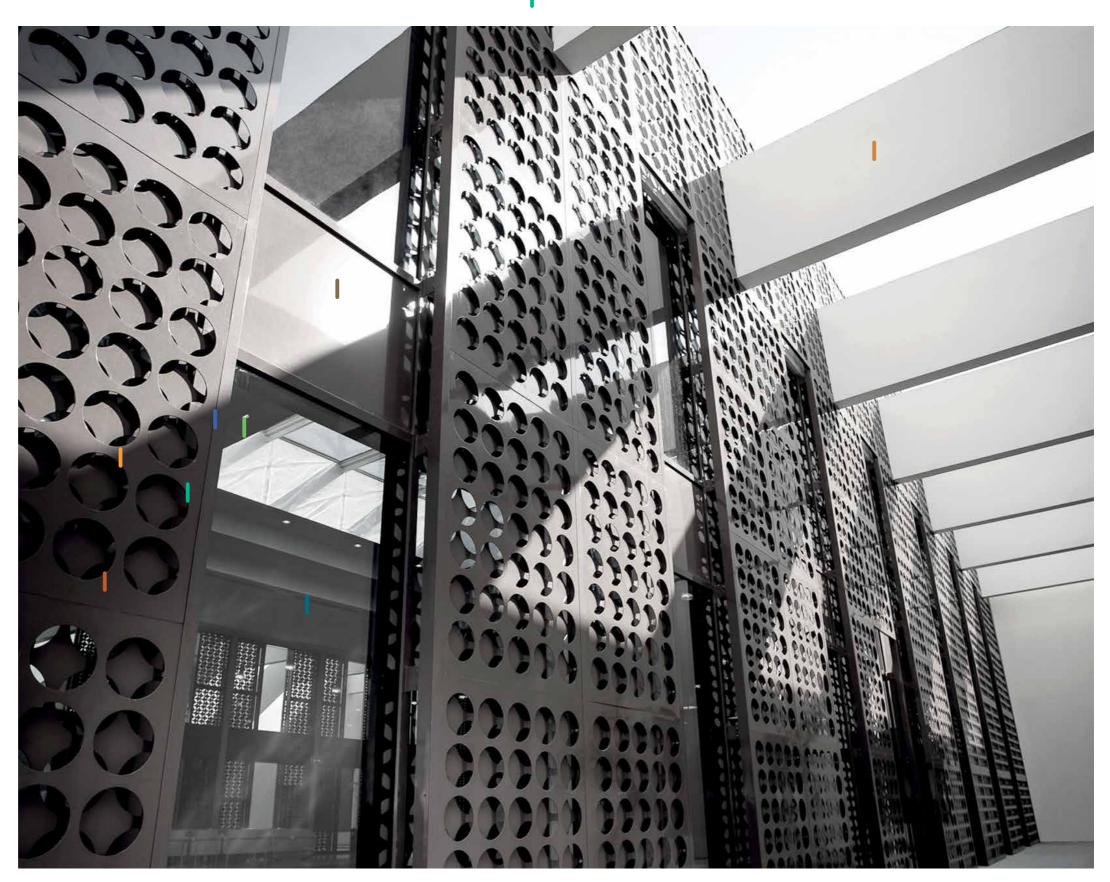
- Consultation / approval of animal research protocols
- Animal ordering
- Animal food and bedding ordering
- Logistic services for clearing and transportation of animal and food from Qatar Customs Department
- Basic training on animal ethics and research
- Advance training on animal research and procedures
- Animal husbandry
- Veterinary care

During the academic year, the Center achieved 4 research grants – 1 UREP student grant, 1 NPRP grant, 1 QU research grant and 1 faculty research grant.

# It is important to note that in the NPRP research on animal modeling, the Center was the only venue to provide the services and facilities to carry out that type of research.

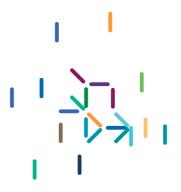
In its training and research collaboration efforts, the Center provided training on animal research for students by LARC researchers. Additionally, LARC signed an MOU with SIDRA for research collaboration and is collaborating with Anti-Doping Lab Qatar on obesity research, Hamad Medical Corporation on allergy research and SIDRA on cancer research







### NATIONAL CENTER FOR EDUCATIONAL DEVELOPMENT (NCED)



During the academic year, the NCED at College of Education was engaged on 4 focal areas related to professional development services -- school based support program (SBSP), school empowerment program, partnership program, and extending training program.

To date, under the SBSP, 7 independent schools have successfully completed the program's requirements allowing 7 more schools to join the program.

Under the school empowerment program, the college established 2 major projects -- Bridging the Gap: From High School to Higher Education, and Enhancing Student Motivation to Learn in Independent Schools. The first focuses on identifying the critical elements that students may not be receiving in their secondary education and what they need for success at the university level. A sample of students from identified schools was monitored during the first year of university study. The identified strengths and weaknesses of the students will serve as the basis of the development of a pilot intervention program intended to bridge the gap between secondary education and university education.

The second project identifies the reasons for lack of motivation among middle and secondary school students by assessing the factors that might negatively affect their motivation. The current project targets four independent schools in Qatar; two middle school-level for girls and for boys, and two secondary schools for girls and for boys. An intervention program for enhancing students' motivation will be designed, implemented and evaluated.

To date, the NCED hosts 4 partnership programs in which new technologies, methods, and studies are shared. These include Qatar University ExxonMobil Teachers Academy (QUEMTA), Future Scientists Academy (STEM), Schoolbased Reform Project (TAMAM), and iEARN Project.

Under QUEMTA, the Center held the 3rd annual gathering in November 22-27, 2014 with a participation of 44 primary school teachers (grades 4-6) from 41 independent schools in Qatar. Math and science specialists provided by the SEC also participated as well as 5 teachers from Teach for Qatar.

Under STEM Academy – the five-day active learning experience for preparatory students -- 16 schools participated in April 2015 with a total of 60 students comprising 32 girls and 28 boys. The Academy was supported by NCED specialists as instructors and supervisors in the target areas. The Academy is also supported by ExxonMobil.

The benefits of the TAMAM project in Qatar were evident in the 2014 TAMAM project conference held in Oman. Abu Bakr Independent School for Boys and Ahmed Ben Mohamed Independent School for Boys who joined the program two years ago shared similar benefits and positive results on their respective projects "Increasing Student Motivation" and "Utilizing Middle Management (Coordinators) Time for Teacher Support and Development". Both schools participated in the conference and shared their accomplishments, observed other schools' performances, and reflected on their development.

Under the iEARN project, NCED launched a partnership program with ROTA aimed at promoting the concept of engaging students' learning through projects with peers from all over the world using internet—based technologies. Through face-to-face workshops, teacher professional development opportunities, conferences, exhibitions, community events and other activities, NCED and Reach Out To Asia (ROTA) are establishing a self-sustainable iEARN-Qatar learning community that will be connected regionally and globally through iEARN International. In Spring 2015, 323 students and 119 independent schoolteachers will showcase 59 projects at QU.

NCED conducted 27 training programs during the Fall 2014 and Spring 2015 under its extended training program. Each program included a series of workshops offered over several weeks. In general, NCED offered more than 27 different extended training programs that included 91 workshops. Three thousand six hundred and eighty eight (3688) educators from 166 independent schools in Qatar benefitted from the programs in the academic year 2014-2015.

### QATAR MOBILITY INNOVATIONS CENTER (QMIC)

During the academic year, Qatar Mobility Innovations Center (QMIC) continued to focus on developing and deploying smart mobility systems and services, as a national leader in the area of Internet of Things (IoT). This is in line with its goal to use innovations to create technology-based industries that will grow with mega projects and support Qatar's National Vision 2030.

Supported by a multidisciplinary dedicated team of 75+ experts, QMIC's focus is innovation development and market delivery in four main areas: Intelligent Transport Systems (ITS), Road Safety, Internet of Things (IoT), and Environment.

The Center ended the academic year with 11 new partnerships with academic institutions, government entities, the sports sector, and the oil & gas industry.

Through its national R&D effort, QMIC is creating local know-how that is being used to create knowledge-based industries in Qatar.

This year, national organizations continued to adopt QMIC's solutions such as Masarak (Intelligent Transport, Logistics/telematics and Road Safety), Hawa'ak (Environment Monitoring), and Salamtek (Innovations for Distracted Driving). QMIC's intellectual property and Labeeb Internet of Things (IoT) platform are the drivers behind these solutions.

The Labeeb platform, which has been a rich bank of data for the Center, collects millions of data records every day. In order to best utiliz this valuable data, QMIC partnered with Qatar Computing Research Institute (QCRI), in October 2014 to collaborate on intelligent mobility analytics that

support the development and delivery of applications and services related to transportation and road safety in Qatar.

During the academic year, QMIC continued to lead on research topics in a number of areas in line with its strategic initiatives which include Intelligent Transportation Systems (ITS), Environment, Road Safety, Internet of Things, etc. Its research methodology follows an experimental approach that is described in the following techniques:

Measurements: to get a better view of a problem in quantifiable terms. Depending on the field of interest, this may involve large scale sensors; crowdsourcing-based deployments for gathering data on environments of real-users.

Experimental evaluation: to assess and quantify the effectiveness of a new design before its deployment on a realistic scale. Techniques such as simulations and real deployments in protected and/or controlled environments are used to accomplish this phase.





Under the NPRP of Qatar National Research Fund (QNRF), QMIC had a total of 11 projects active during the academic year. They cover areas such as connected vehicles, broadband communications, smart grid, security and public safety, and body area networks.

With an acceptance rate of 25%, a new NPRP project was awarded to QMIC in the NPRP 8th cycle. The project aims at developing and conducting large-scale field operational tests of connected vehicles in Qatar.

At the close of the year, QMIC researchers were working on a range of topics, as under:

- Connected vehicles
- Road Side Units' (RSU) placement optimization within a city-scaled area
- Data collection using Pub/Sub extension to Named Data Networking (NDN) and NDN query in V2X networks
- Development and testing of a 3G/LTE adaptive data collection system in vehicular networks
- System evaluation of eco-routing in V2I communications
- Simulation framework for link and system-level performance evaluation of IEEE 802.11p and LTE based vehicular networks
- Advanced Radio Access Technology (RAT) selection algorithm and infra-structure assisted broadcasting protocols for multi-tiered hybrid vehicular networks
- Public Safety & Security
- Study, implementation and evaluation of existing routing protocols in public safety context using realistic mobility model
- Network architectures for tactical and public safety applications
- Performance impact of security on cooperative awareness in dense urban vehicular networks.
- Security and safety for cooperative intelligent transport systems
- Benchmarking and evaluation of elliptic curve digital signature algorithms
- Cryptography-based privacy solutions for urban mobility and traffic applications

#### Body Area Networks:

- Performance evaluation of an integrated and Cross-layer MAC / networking communication layers for the specific context of On-Body and Body-to-Body networks, and according to realistic applications scenarios
- Communication protocols for wearable wireless networks
- Mobility and radio link modeling for wearable wireless networks



- Remote monitoring over sustainable wireless networks: application to remote patient monitoring
- Internet of Things
- Platform as a Service for the Internet of Things (IoT)
- Benchmarking and evaluation of IoT protocol standards
- Tracking of IoT devices status and malfunctions
- Broadband networks:
- Quality of service enhancement in self-organizing networks (SON)
- Machine learning methods for sleep cell detection
- Reinforcement learning mechanisms for cell outage detection and compensation in dense heterogeneous networks
- Big data enabled self-organizing networks
- Unveiling communication patterns in a city-scale mobile phone data
- Green mobile operator collaboration: optimizing the green collaboration for cognitive radio cellular networks
- Others
- Optimization of the demand side management for LTE heterogeneous networks powered by smart grid
- Software defined networking for smart grid networks
- Indoor localization and navigation using WiFi and Bluetooth technologies
- During the academic year, QMIC researchers published 2 book chapters, 8 peer-reviewed papers, and 33 papers in international conferences. Additionally, four patent applications were filed.

In terms of international collaborations, the Center's researchers conducted joint research activities with counterparts from several institutions such as Cambridge University, Virginia Tech, Technical University of Braunschweig, Western Michigan University, Purdue University, KAUST, and the American University of Beirut, to name a few. These joint works have led to several joint publications in internationally recognized journals and conferences.

### QATAR ROAD SAFETY STUDIES CENTER (QRSSC)

Since its establishment in 2012, the Center has advanced its efforts to address the challenges facing Qatari society on the issue of road and traffic safety. Housed and managed by the College of Engineering (CENG), QRSSC works in collaboration with other QU colleges, Ministry of Interior, Hamad Medical Corporation, Ashghal and other organizations.

Its current focus is on studying traffic problems in Qatar, especially investigating the common causes of accidents, types of cars involved and whether they are equipped with safety measures, and to raise public awareness about traffic safety. The studies look at patterns of accidents, contributing factors, and drivers' competencies, and make recommendations for approaches that will result in improved road safety.

QRSSC projects are covered under three themes: Road User Behavioral Change; Vehicle Safety and Biomechanics; and Road Engineering and Environment.

Three projects are currently ongoing under the theme Road User Behavioral Change:

Investigating Pedestrian Crossing Behavior to Improve Pedestrian Accident Rates and Severities in the State of Qatar (2015-2017) -- to study, investigate and model pedestrian crossing and walking behavior in congested areas in Doha. This relates to the management of pedestrian flows and the reduction of fatalities for travelers walking to and from the metro being planned for 2020.

Assessing PR Road Campaigns in Qatar -- to evaluate road safety campaigns in Qatar to look into the scope and possible impact of such PR exercises in achieving their objectives in the Qatari society during the last few years. The project is expected to yield significant results regarding the outcome of numerous campaigns

conducted so far by various agencies on the issue of road safety. It will provide raw data on the effectiveness (or otherwise) of the various campaigns analysed and propose possible improvements and recommendations to the way campaigns should be conceived and conducted in the future.

Study on Pedestrian Safety
Enhancement in Qatar -- to study
factors such as education of driver
and victims, ages, location, vehicle
type, time, day of the week, etc... to
better understand interaction between
factors and how solutions in terms of
infrastructure, awareness or regulations
can help increase the safety of
pedestrians.

Under the theme Vehicle Safety and Biomechanics are the following projects:

Design and Development of Novel Shock Absorption Systems to Reduce Injury during Vehicle Collision – funded under the 7th NPRP cycle of Qatar National Research Fund (QNRF) for the period 2014-2017.

Multiphysics Modelling and Validation of the Coupled Dynamic Response of Whiplash Trauma and Head Restraint -- funded under the 6th NPRP cycle of QNRF for the period 2013-2016.

Projects ongoing under the theme Road Engineering and Environment:

Modeling and Simulation of Road Safety and Traffic Systems in the State of Qatar (2015-2018) – to focus on data infrastructure and data analytics as major enablers of an advanced traffic safety system for Qatar roadways. In particular, research and development goals include:

A comprehensive review and analysis of the existing Qatar traffic system, including traffic data infrastructure, safety planning, and engineering practices and standards.

Development of data analytics for crash prediction and the use of these predictions for the purpose of analysis of "hot spots", and risk-based characterization of roadways, intersections and roundabouts.

Development of simulations to evaluate traffic safety measures and their impact on traffic congestion and safety risks.

Development of a roadmap for advanced traffic safety infrastructure in Oatar

Safe Transport of Hazardous Materials in Qatar – to address the risk involved in transporting hazardous products such as petrol and its impact on road traffic and traveller safety. A mathematical modeling approach that considers the specific aspects related to logistics and transportation of dangerous materials will be developed for Qatar Roads. In order to assess the performance of the proposed approach, computational tests will be performed on instances based on real cases of transport of hazardous materials from petrol stations such as Wogod.

In-depth Analysis of Car Crashes -- to develop a comprehensive statistical analysis of road traffic accidents in Qatar for the past 20 years. By describing quantitatively the road traffic accidents (RTA) and injuries associated to it, the trends of RTA; month, week, day, and hourly distribution; causal factors; road users; age and gender; level of education; nationality; and regional benchmark will be analyzed and studied. Different statistical approaches were used to evaluate and study the effect of population, registered vehicles, and licenses growth on road safety and society.

Prediction of road accidents in Qatar by 2022 -- to identify the factors affecting the road accidents in Qatar, and predict the number of road accidents by 2022 to give a reasonable picture of what may happen in the future. Various statistical approaches are used to estimate the number of road accidents by 2022 using data from 1995-2013.

Measuring Safety Performance of School Buses -- to improve the safety performance of school buses by studying the current school bus designs used in various schools in Qatar to get a better understanding of current school transportation operations that will serve to properly assess the system. The study is expected to yield significant results that will construct a rich base of material on school bus safety.



Evaluation of the "One Second" brand -- the national brand for road safety -- to test the effectiveness and recommend strategic growth for the brand.

Study the impact and effectiveness of the Maersk Oil road safety initiatives.

Baby car seats/booster seats -- to investigate the applicability and effectiveness of the "donation" method in Qatar and discuss barriers to implementation of such initiatives in Qatar. The study will recommend successful program effectiveness and behavioral change strategy to parents and caretakers for the next phase of the program, and implementation guidelines/strategy to the sponsor.

The Center will undertake comprehensive road safety research on effectiveness, impact evaluation and successful behavioral change strategy recommendations in this program.

#### COLLABORATION AND PARTNERSHIPS

The Center collaborates with Maersk Oil on an educational and awareness program targeting 12-18 year old students to highlight the dangers of driving without formal qualification. The program consists of presentations/workshops at schools and a simulator experience designed and developed by Williams Advanced Engineering in Qatar. The program will be delivered in partnership with the Traffic Department of the Ministry of Interior.

Seat Belt Usage among Young Drivers in Qatar (QU and QF) -- to measure young drivers' seat belt and mobile phone usage in Qatar, using various methods. Observation of seat belt and mobile phone use will be recorded on intersections and student car parking areas at Qatar University and Qatar Foundation. In addition, self-reported surveys will be completed by university students with various analysis tests conducted on belted vs. unbelted users.

Speed humps in Qatar – to evaluate speed humps and their flat-topped cousins "speed tables' in selected areas of Qatar. The aim of this study was to observe the condition of

these traffic-slowing measures in Qatar classifying them based on their dimensions and verifying if they are constructed according to Ashghal's standards.

Traffic Impact Study at Qatar
University -- to evaluate alternatives
for management of existing and future
traffic flow along main surrounding
roads. In addition, the study will
provide details on the existing transport
conditions, undertake traffic analysis,
and identify transport-related issues
and concerns. It will also provide
recommendations and evaluations
of the necessary interventions or
alternatives that may be required to
accommodate traffic at an acceptable
level of service as a result of the
planned developments in the area.

In collaboration with the Ministry of Development Planning and Statistics, the Center is working on a project on geographical location of road accidents in Qatar. It is also undertaking a scientific study of the Doha Expressway to address congestion -- it will be chaired by a multi-disciplinary committee set up by QRSSC comprising QU College of Engineering faculty members.

During the academic year, QRSSC collaborated with Maersk Oil, the Traffic Department, QAPCO and other organizations on a number of public awareness campaigns on road safety that impacted university, high-school, primary and preparatory-level students.

A range of forums conducted by the QRSSC during the academic year included workshops, seminars, and a Road Safety Interdisciplinary Research Forum.

Workshops were delivered on Advances in Proactive Road Safety Analysis Techniques (December 2014); Road Safety Research Findings, prepared for Traffic Department (January 2015); and The Role of Traffic Micro-Simulations in the Proactive Safety Assessment Roadway Facilities (March 2015). A seminar on March 2015 -- Road Safety is Your Right – targeted to QU students, was coordinated with Traffic Department and QAPCO.

The Interdisciplinary Research Forum, organized by the Center in May 2015 brought together top speakers from the National Traffic Safety Committee, Trauma Surgery Section-Hamad Hospital, Supreme Council of Health, Supreme Education Council, and the Permanent Population Committee. The forum set out the experiences

and outcomes from within and across the different disciplines in road safety. Interdisciplinary research groups presented their current research on road safety and provided an overview of their specialized area and discussed potential research ideas with attendees from other institutions.

Center members also participated in conferences and other forums such as "Vision Zero Qatar-Sweden (Knowledge Sharing - Best Evidence Practice between Qatar and Sweden)" in May 2015 and the Third ITS & Road Safety Forum in September 2014. The Center also participated in the exhibition on the observance of '31th GCC Traffic Week' at Darb Al Saie in March 2015 with a booth under the slogan "Your Decision Determines your Fate"

Faculty presented papers and research findings at various conferences on traffic-related issues:

Energy Absorption Capability of Thin-Walled Aluminum Tubes under Crash Loading for Crashworthiness Application. International Conference on Automotive Innovation and Green Energy Vehicle (AiGEV, August 2014).

A novel design of lightweight aluminum tubular crash-box for crashworthiness application. International Conference on Advances in Mechanical and Robotics Engineering (October 2014).

Journal articles and reports published in the academic year were:

An experimental investigation into mechanical behavior of hybrid and non-hybrid composite semi-elliptical springs, Materials and Design 52 (2013) 504–513 (ISI-Journal with High Impact factor, 2.9).

A Novel Design of Lightweight Aluminum Tubular Crash-Box for Crashworthiness Application, IJAMAE Volume 1: Issue 2, pp 53-56.

Three executive summary research reports -- Prediction of Road Accidents in Qatar by 2022; In-Depth Analysis of Road Traffic Accidents in Qatar; and Study on Pedestrian Safety Enhancement in Qatar -- were published in December 2014 under the sponsorship of ExxonMobil.



### **SOCIAL AND ECONOMIC SURVEY** RESEARCH INSTITUTE (SESRI)

The 2014-2015 academic year saw an expansion of SESRI's innovative research and capacity-building activities as well as the exciting new development of launching the Policy Unit, which will build a necessary bridge between research production and policy formulation and evaluation. Also, in what has become a SESRI tradition, the Institute conducted its fourth "Omnibus: A Survey of Life in Qatar" revealing trend data in a broad range of areas including media, political values and attitudes, gender roles and attitudes, charities and charitable donations, traffic issues, and labor migrants.

During the academic year, a number of activities were conducted based on SESRI survey themes: social surveys, social and political values, economics, sports and national projects, and methodological surveys.

In social surveys, SESRI is in the process of the second wave of its innovative study of social capital in Qatar, with the NPRP-funded survey "From Fareei to Metropolis: a Social Capital Survey of Qatar II".

"Kin Influence on Qatari Women's transition into the Labor force: a panel study", another NPRP-funded project in this thematic group, looks at the factors that determine Qatari women's entry into the labor force -- a matter of national importance -- and the possible effect of kin relations on such

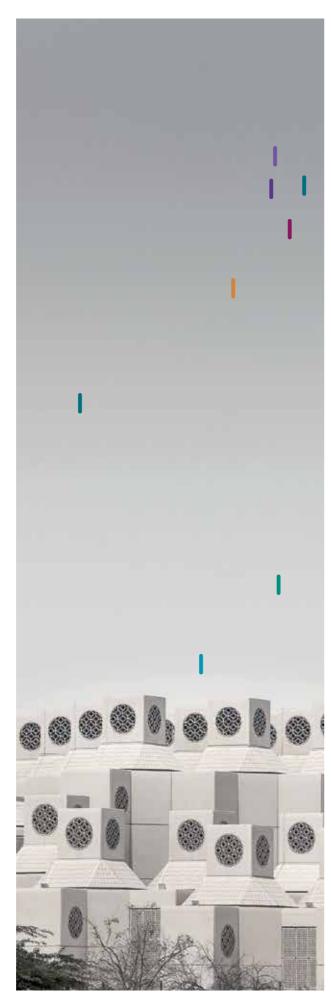
The Institute also conducted a study entitled "Qatari Women Engagement with Society" in which QU undergraduate students participated under a UREP grant. The study was in collaboration with Northwestern University in Qatar (NU-Q).

Projects related to major national projects were undertaken during the academic year and included the impact of the 2022 Qatar FIFA World Cup on the people of Qatar and the GCC countries, and a survey of domestic tourism in collaboration with Qatar Tourism Authority (QTA).

For the World Cup survey, approximately 2,200 interviews of Qatari nationals and white-collar expatriates were completed through CAPI (Computer Assisted Personal Interview) mode. In the first round of the Domestic Tourism Survey, a representative sample of approximately 800 respondents comprising Qatari nationals and expatriates participated through Computer-Assisted Telephone Interviewing (CATI).

In the area of health, SESRI implemented the Health Expenditure and Utilization Survey in 2014 sponsored by the Supreme Council for Health (SCH). Approximately 4,000 households and individuals were randomly selected from various segments of Qatari society for face-to-face interviews on topics relating to the expanding utilization of health services, health insurance coverage, expenditures on health for individuals and families, and services provided by the Qatari healthcare sector to residents.

As with every year, SESRI implemented the Executive Opinion Survey in partnership with the World Economic





Forum and in collaboration with the Qatar Businessmen Association. The survey represents "The Voice of the Business Community" and is critical for feeding into the Global Competitiveness Report. Also in 2014-2015, SESRI partnered with Silatech to conduct the Global Entrepreneurship Monitor: Qatar Report 2014, which highlights the entrepreneurial environment in Qatar.

#### Social and political values remain a core interest of the Institute, and the subject of its surveys on a national and regional level.

In 2014/2015, SESRI implemented the World Values Survey regionally in Kuwait and Bahrain for comparison with Qatar data and launched an NPRP-funded survey on "Mass political attitudes in the Arab States of the Gulf: Administering the Arab Democracy Barometer in Qatar and the GCC". Two projects on the social/political theme -- Local Elections and Support for Female Candidates and Support and Opposition to the Kafala System in Qatar received Best Poster awards at the 2015 Annual QU Research Forum.

In addition to substantive projects and thematic contributions, SESRI also contributes to innovation in survey methodology examining issues related to sampling and to the effect of interviewer nationality on responses. In this regard, two posters were presented at the 2015 Annual QU Research Forum on Interviewer Nationality and Survey Response and Practical Guidance on Calculating Sampling Error in Election Polls.

In implementing these projects, SESRI collaborated with researchers from a number of national and international organizations, including Carnegie Mellon University in Qatar, Northwestern University in Qatar, Georgetown University School of Foreign Service in Qatar, European University Institute, University of Puget Sound, University of Virginia, National



of Michigan.

One of the most significant developments at SESRI during the academic year was the launch of the Policy Unit. The Unit will complement the Institute's existing research efforts by synthesizing, probing more deeply, and analyzing the Institute's expansive inventory of individual-level survey data from a different perspective. The Unit will offer previously unavailable policy insights for use by public opinion leaders, government officials, policymakers, journalists, the public, and the international community.

During the week of the Unit's high-profile launch on May 17-21, 2015, SESRI hosted a group of political science scholars taking part in the annual Middle East and North Africa Workshop sponsored by the American Political Science Association (APSA). The program, held for the first time in the Gulf region, brought together a competitively selected group of 22 promising junior scholars who are engaged in studying the issue of oil and politics in the Arab world from prestigious universities in the Middle East, Europe, and North America. On the final day of the workshop, SESRI brought together members of the wider academic and policymaking communities in Qatar in a discussion entitled "Cure or Curse? The Benefits and Challenges of Oil Wealth". Speakers included a Qatar former deputy Prime Minister and former Minister of Energy and Industry, and two well-known regional and international scholars.

Addressing a timely issue of national interest and importance, the Policy Unit held a forum on June 14 presenting the findings of a study entitled "Qatar Central Municipal Council (CMC): Public Knowledge, Perceptions, and Engagement. Between April 5-21, SESRI conducted a scientific telephone survey of 811 Qatari nationals to learn more about public participation and perceptions of the CMC and the elections. Speakers in the forum included two CMC members, a representative of the Ministry of Interior, and a commentator from QU Gulf Studies Center.

In March 2015. SESRI hosted the Regional Conference of the World Association for Public Opinion Research (WAPOR) which was held for the first time in the Middle East under the theme "Innovation in Public Opinion Research", bringing together researchers and practitioners to share the latest on innovative public opinion research methods and highlight key differences and commonalities on how public opinion research is conducted around the world. The conference attracted more than 120 survey research scholars and researchers from around the world.

In May 2015, SESRI partnered with the Doha International Family Institute (DIFI) to host DIFI's Annual Conference on Family Research and Policy under the theme "The Arab Family in an Age of Transition: Challenges and Resilience". In addition to serving on the Conference's Scientific Advisory Committee, SESRI participated with research presentations and session moderation.

Efforts by SESRI to build national capacity on survey research resulted in two Qatari scholars completing their post-graduate degrees. One SESRI scholar completed her Master's from Johns Hopkins University and rejoined SESRI as a policy analyst; a second completed his PhD from Queensland University of Technology (QUT) and joined the Institute's Research Department. Two Qatari researchers are in the final stages of their PhD degrees in the UK, while a Research Assistant was accepted at the University of Michigan starting September

During the academic year, SESRI hosted graduate interns from the University of Michigan, Emory University, and Princeton University for various periods. Such academic collaborations provide mutual benefit, giving the Institute the support and input of graduate students from top universities and providing the interns the opportunity to learn from SESRI's significant bank of work.



#### INTRODUCTION

Community service, like research, is integral to Qatar University's mission and vision, and an important part of the student academic experience. It highlights the organization's bond with the wider community and its commitment to addressing its everyday needs and finding sustainable solutions.

During the academic year, QU students, faculty, and staff lent their skills, expertise and talents to deliver a number of community service activities and awareness programs that positively impacted individuals, groups, and communities across Qatar.

At the college and institution level, these activities were delivered in the form of engagement with high schools, parents and community members, Qatarization strategies, collaborative partnerships, targeted research, health and safety awareness, professional development, consultancy services, student leadership and volunteer projects, and community-driven surveys.

In the year, surveys conducted by the Office for Institutional Planning and Development (OIPD), the Social and Economic Survey Research Institute (SESRI), and the Qatar Road aimed to harness public opinion on a number of community-driven concerns, such as perception of QU, environmental impact at Ras Laffan Industrial City, and road safety in Qatar, to name a few. These surveys serve to draw the community closer to the organization, and their findings contribute towards QU approaches in areas important to their needs and aspirations.

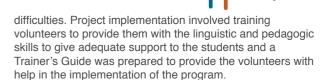
#### HIGH SCHOOL OUTREACH

High school outreach programs such Al Bairaq World developed by the Center for Advanced Materials (CAM) and Life Is Engineering Program, Annual Computing Contest, Wooden Bridge Competition offered by the College of Engineering, and the Gasna initiative by the Gas Processing Center, have become national models for engaging Qatari youth in scientific research, innovation, and creativity. The programs saw a continued increase in popularity by schools, teachers, students, parents and industrial partners.

Al-Bairaq project provided 51 workshops and training courses for 826 students from 39 schools across Qatar, during the academic year 2014-2015. Additionally, CAM held 4 workshops in which 78 students from 3 primary schools were provided with training. Notably, the Al-Bairaq project covered 79.6% of the total number of independent secondary schools in Qatar.

Meanwhile, CENG high school outreach impacted over 1200 students for the academic year 2014/2015, and the College of Education's Future Scientists Academy engaged 60 students (32 girls, 28 boys) from 16 preparatory schools in Doha. The programs are designed to improve student STEM skills and motivate them to learn and make innovative discoveries in science and technology.

Under CED's Reading Together for Qatar Project implemented in February 2015, QU students, faculty and students provided reading support in Arabic and English to students in primary lower grades who have reading



The College also collaborated with the Supreme Education Council (SEC) to identify 4 independent (2 boys, 2 girls) schools. Project findings will be disseminated in the form of a research paper, and the participating schools will receive a report about the project findings, highlighting the students' improvement level. In its second phase, the project will include volunteers from the wider community who meet specific criteria.

The College of Pharmacy also reached out to secondary schools, hosting 21 Grade 12 national female students from an independent girls' school in Doha to orient them on the pharmacy profession and the diverse training, sponsorship, post-graduate study, and future employment opportunities available to them.

The College of Medicine, conducted over 25 visits to independent high schools in Qatar to attract high-achieving students and to build young students' interest in the medical profession and its importance to Qatar's development.

Qatar Mobility Innovations Center also stepped up to engage young minds in one of its most recent ventures -- a partnership with Qatar Business Incubation Center (QBIC) signed in May 2105. This will serve for collaboration as incubation partners who support innovative business projects, and more importantly new entrepreneurs, and advance their efforts through the Center's mentoring expertise, among other services.

High outreach activities at the Environmental Science Center saw high school students oriented on turtle conservation during a visit in June 2014 to the newly established Turtle Information Centre at Fuwairit Beach. Another visit in May 2015 by high schoolers to the ESC included orientation on the marine environment, marine pollution, sea animals and conservation activities by the Center's Marine Biology Laboratory.

CLU hosted high school participants of the Al Bairaq program for first-hand experience of inter-mediate level experiments at their labs.

Career Fairs, Open Days and school visits conducted during the year by QU colleges, academic departments, Recruitment Section, and Career Services Center were other points of contact with high school students to orient them on QU's academic programs, campus life, and future career opportunities.

#### **QATARIZATION**

Qatarization efforts were stepped up at QU during the academic year with the organization providing programs designed to boost national graduate numbers studying at universities around the world, and to enhance national faculty capacity.

This was fuelled by a dedicated Qatarization Unit which was set up in the Human Resources Department to advance the organization's goals to strengthen its faculty and staff body with talented and well-educated nationals.

In addition, all QU colleges also adopted the culture of Qatarization in a number of ways such as identifying talented undergraduate students and mentoring their journey towards pursuing postgraduate degrees, and implementing a number of activities, events, and awareness and training forums to attract national high school students to the myriad of academic programs and opportunities offered at the college and institution level.

Qatarization efforts were also reflected in the new College of Medicine's outreach campaign that saw responses from over 700 applicants to fill the 50 places for the first cohort; visits to more than 25 independent high schools to target high-achieving students; and several community events that attracted more than 1000 students.

During the academic year, the Scholarships and Partnerships recorded over 62 national students pursuing postgraduate studies at top-tier universities around the world such as the Imperial College, London, Karolinska Institute, Columbia University, University College London and Johns Hopkins University (to name a few), following which they will be recruited into positions at QU or within the professional sectors in Qatar.

The "I Study Here" campaign led by the External Relations Department was another initiative designed to engage the wider Qatari public on the wealth of exciting opportunities for students during their academic journey at QU.

During the academic year, a number of new undergraduate and graduate programs were established in line with the organization's response to the labour market's need for graduates in specialized disciplines. These included a BA in Special Education and an MA in Curriculum, Instruction, and Assessment at the College of Education, a PhD in Gulf Studies (College of Arts & Sciences), and LLM in Private Law and LLM in Public Law (College of Law).

#### RESEARCH AND COLLABORATION

QU research efforts are also a reflection of its community outreach as they demonstrate its commitment to addressing community concerns and needs, and finding sustainable solutions that serve to contribute to the objectives outlined in the national vision and development strategies.

Research success during the year highlighted a host of community-driven research projects awarded to QU by Qatar National Research Fund (QNRF) under NPRP and UREP.

One such project was led by the College of Engineering students who designed a smart system to help ambulances get through traffic jams without delay time. The aim of their research, which was funded under a UREP grant, was to address the issue of ambulances being stuck in traffic jams and the risk to persons awaiting their arrival or those already being transported to the hospital.

The smart device which has a GPS feature can be outfitted in ambulances connected to a central unit located in the Traffic Department which in turn identifies the route on which the ambulance is travelling and facilitates its unhindered passage by turning all traffic signals along the route to green.

Two NPRP-funded research studies on road safety awareness are in process under the Qatar Road Safety Studies Center, as part of the organization's focus on research fielding national priorities. Under one of the Center's core themes – Vehicle Safety and Biomechanics -- the studies will look at "Design and Development of Novel Shock Absorption Systems to Reduce Injury during Vehicle Collision", and "Multiphysics Modelling and Validation of the Coupled Dynamic Response of Whiplash Trauma and Head Restraint".

Faculty collaboration with institutions around the world also produced outcomes that would positively impact the community. An example is the research project entitled "Illusory Sense of Human Touch from a Warm and Soft Artificial Hand" which is revolutionizing prosthetic hand design. Led by a professor of mechanical engineering at College of Engineering along with several international collaborators, the study showed that an illusion of human touch can be created by a warm and soft artificial hand to the person being touched. When applied to prosthetic hands, these findings carry the potential to help prosthesis users cope with the psychosocial effects of losing a part of their body.

College of Pharmacy students collaborated with medical professionals at medical and healthcare organizations in Qatar on research studies on topics important to Qatari society, such as cancer medication, and improving health-related research capacity of pharmacists. Notably, these studies netted the students 1st and 2nd place awards at the 5th Pharmaceutical Care Conference held in Oman.

CPH collaborative efforts were also reflected in its IPE forums that brought together students and faculty from the College and other partners in Qatar -- Weill Cornell Medical College in Qatar, the University of Calgary in Qatar (UC-Q) and the College of the North Atlantic in Qatar (CNA-Q) — to advance inter-professional education among students pursuing medical and health-related disciplines. Workshops were held in November and December 2014, and February and May 2015. Students were oriented on diabetes care, teamwork and communication to ensure patient safety, and smoking cessation.

The College has adopted the lead role to incorporate the IPE concept into the curricula in the Qatar health science programs and initiated the first IPE Qatar Committee in 2013. As a result, the College was selected to host the first Middle East conference for Inter-professional Education (IPE) in Qatar in December 2015.

In its collaboration with national organizations in government, industry, business, health, academia, and civil society, QU signed a number of MOUs in the academic year with new and existing partners that will serve to strengthen student and faculty academic and research opportunities.

An ongoing partnership between the QU Gulf Studies Center and Cambridge University was further strengthened through the College of Arts & Sciences hosting a reception at Cambridge University along the side lines of the Gulf Research Meeting. The reception drew a number of academics and researchers from Cambridge University's Gulf Research Center and from various universities, research centers, and think tanks from around the world.

The College of Medicine brought together partners within Qatar's healthcare sector as well as experts from top international institutions to form its advisory board to guide its

delivery of quality medical education to Qatar. The College also established an MOU with Maastricht University and is set to develop further agreements with institutions at home and beyond.

In January 2015, QMIC hosted officials from Qatar's Armed Forces for a technical workshop on Mobility Innovations and Solutions, aimed at identifying areas of collaboration and partnership.

Professorial Chair positions were also established at QU as part of its ongoing collaboration activities to benefit both parties in joint initiatives and programs, and academic and research opportunities for national students and faculty, which also serve to contribute to Qatarization strategies. During the academic year, a Professorial Chair in Environmental Materials supported by QAFAC was established, and one in Cyber and Computing Security by Thales, both at the College of Engineering in September 2014. A Chair in Mathematics supported by QAPCO at the College of Education was established in October 2014.

Collaboration with national, regional and international industry institutions continued to be a central focus for the organization, and it was ably assisted in these efforts by high-level advisory boards that were appointed at several colleges and research units.

#### **HEALTH AND SAFETY**

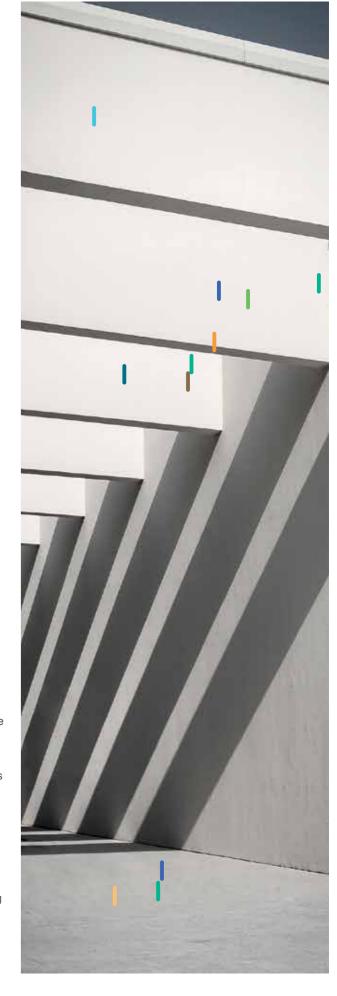
During the year, health and safety awareness was highlighted in campaigns on obesity, diabetes, and cancer, and traffic and road safety targeted to community members. Initiatives and campaigns were led variously by pharmacy and health sciences students from the colleges of Pharmacy and College of Arts & Sciences, QU Medical Clinic, Qatar Road Safety Studies Center, and the Qatar Mobility Innovations Center.

The organization undertook a number of outreach activities during October 2014 in support of Breast Cancer Awareness Month. These included a 5-day interactive Pink booth, a 2-day health exhibition, and student-led outreach on the disease.

They aimed to support national efforts to increase breast cancer awareness and early detection of disease, signs and symptoms, and to encourage regular breast examinations. The month-long series of events came as a part of QU's ongoing commitment to promoting awareness of health issues that impact the Qatari community.

Students, faculty and staff received information and guidance at the Pink booth that was erected at College of Arts and Sciences' (CAS) reception area from October 12-16, 2014. The booth included a private room with demonstrations performed on a mannequin to show self-checking techniques and how to identify suspicious lumps. This activity was hosted by QU External Relations Department and organized by Agency 222 on behalf of the National Cancer Program.

Breast cancer was a core theme at the Third Health Exhibition organized by QU Medical Clinic on October 21-22 in conjunction with Hamad Medical Corporation National Center for Cancer Care & Research and its Health Professions Awareness Committee (HAC) under the heading "Working together for health". The event brought together associations and institutes from across Qatar such as Sidra Medical and Research Center, ROTA, Qatar Mental Health Association, Qatar Anti-Doping Commission, Qatar Red Crescent, Qatar Center for Volunteering Activities, and many



others, and drew a constant stream of visitors to the respective information booths. It also featured various health activities and services such as blood donation and medical checks for blood pressure, blood sugar, and BMI, as well as eye screening.

College of Pharmacy students also held their annual cancer community outreach activity for the 5th year. The event, held on October 1, was launched by the newly elected executive members of Qatar Pharmacy Undergraduate Society (QPhUS) alongside 1st, 2nd and 3rd year pharmacy students. The program included the communication of key messages on the latest survival rates, reducing risk factors, and the pharmacist's role in disease awareness and prevention, as well as a screening of a video on "Muslim Women and Breast Cancer" that co-related breast self-exams and performing wudhu. Visitors were also encouraged to leave a pink fingerprint in support of cancer survivors.

Another awareness event on breast cancer was hosted by CAS Department of Health Sciences on October 23 in collaboration with Qatar Cancer Society under the theme "Wear it Pink". Visitors were encouraged to wear pink wristbands in support of cancer survivors. The event included an awareness session led by medical staff who provided attendees with necessary information and tools about breast health and disease prevention, as well as a two-hour workshop and a training on methods of self-examination for females only.

On October 26, the International Affairs Students' Society hosted two female breast cancer survivors at QU Library to hear their experiences and their advice on constant self-examination, early reporting of suspicious lumps, and strict interaction and follow-up with doctors and healthcare advisers to ensure efficient treatment towards positive outcomes.

Molecular cancer research was the theme of the annual QU Life Sciences Symposium held in December 2014. The event brought together eminent scientists and researchers from different scientific disciplines and countries, to discuss their findings and the challenges in molecular cancer research. Sessions highlighted Epigenetics and Cancer; Complementary Alternative Medicines for Cancer Prevention and Treatment; Cancer Drug Discovery: Molecular Approaches; and Environment and Cancer.

Other awareness activities focused on diabetes, mental health, asthma, blindness, deafness, autism, HIV/AIDS, inclusion of persons with disabilities, and medication safety through respective forums and commemorative days conducted by the College of Pharmacy, College of Arts & Sciences and College of Education in conjunction with a host of national organizations and academic institutions.

Blood donation campaigns were also held at QU through the annual activity conducted by its QU Medical Clinic and which brought wide participation by students, staff and faculty alike. Two campaigns –"Donate Blood. Donate Hope" and "Every Drop Saves a Life" – were held in February and March 2015 in conjunction with the Blood Bank Unit and Blood Donation Clinic at Hamad Medical Corporation.

Environmental safety issues were addressed through a variety of forums - for example, the Environmental Science Center (ESC) and the Gas Processing Center (GPC) held the first Qatar Clean Air Research (QCAR) Workshop in February 2015 as a result of collaboration with Qatar Environment and Energy Research Institute (QEERI) and COWI. The workshop, which was the first such in Qatar, discussed issues related to air quality and sources of air pollution in the country. It also focused on recommendations for mitigation of the adverse effects of air pollutants on human health, and best practice for air quality management that will form the basis for a national air quality strategy.

Similarly, a 3-day workshop in March 2015 to commemorate Safety Awareness Week drew QU and local experts to discuss a wide range of topics including safe handling and storage of chemicals and hazardous substances, fire-fighting and evacuation procedures, potential risks of doping substances and methods and laboratory safety. The workshop program also included a demonstration of first-aid for incidents of cardiac arrest.

QU's environmental conservation outreach was reflected in a number of forums. Qatar's dugong population was the subject of a 2-day workshop in October 2014 to discuss strategies and recommendations for dugong conservation as well as current and future collaborative opportunities. The workshop followed the signing of an agreement in July 2014 between QU ExxonMobil Research Qatar (EMRQ) and Texas A&M University at Galveston (TAMUG) to further environmental

research and marine mammal initiatives relevant to Qatar.

A Seminar on "Biodiversity
Conservation", and a conference
on Microalgal Technologies and
Applications were delivered by the
Center for Sustainable Development
during the year. The CSD also led a
field trip to Purple Island, AI Dhakheera,
aimed at raising awareness among
students and residents on the
importance of conserving coastal
ecosystems in Qatar.

Road and traffic safety and pedestrian welfare continued to be a focus during the academic year with initiatives conducted at the institution-level and by ORSSC and OMIC.

QU launched a campaign on responsible driving within the campus, which included the installation of speed bumps and zebra crossings at critical spots on campus roads and the establishment of additional parking areas to facilitate increased student population and visitor access.

An interactive seminar entitled "Road Safety is a Youth Demand" served as part of the launch of a road safety campaign at QU in March 2015 to coincide with the 31st GCC Traffic Week. The event was an effort by QRSSC in cooperation with students from QU Media Club and sponsored by Qatar Petrochemical Company (QAPCO), and in strategic partnership with the Traffic Department of Qatar Ministry of Interior (MOI).

The seminar aimed to draw attention to

the campaign themed "Did you know?" that highlighted the urgent need to provide better protection for pedestrians and for community members to follow necessary procedures to this end.

The Center is set to launch a Road Safety Club at QU that will organize campaigns, events and seminars aimed at dissemination of traffic safety information among students and the wider community.

Its continuing efforts to enhance awareness about the importance of adhering to the principles of road safety involve collaboration with the Traffic Department, General Directorate of Traffic, National Committee for Road Safety, Ashghal, Ministry of Development Planning and Statistics, Hamad Medical Corporation, Woqod, and Maersk Oil Qatar. Areas of focus include topics such as road user behaviour, pedestrian crossing behaviour, baby booster seats, seatbelt usage by young drivers, whiplash trauma, safe transport of hazardous materials, safety performance of school buses, and effectiveness of speed bumps.

An awareness program conducted with Maersk Oil during the academic year targeted 12-18 year old students to highlight the dangers of driving without formal qualification. The program consisted of presentations, workshops, and traffic simulations delivered at schools in Doha.

The Center is also undertaking a scientific study of the Doha Expressway to address congestion, and in this regard, has set up and is chairing a multi-disciplinary committee comprising College of Engineering faculty members.

Another important study is the "Prediction of road accidents in Qatar by 2022" which focuses on projections in light of the FIFA World Cup 2022 and seeks to consider the risk issues of road accidents at that time, and to plan and maintain sustainable safety strategies.

Efforts by Qatar Mobility Innovations Center (QMIC) during the academic year to address strategic traffic concerns included a Letter of Intent (LOI) with the General Directorate of Traffic; (Muroor) updating its Masarak iTraffic mobile application; and the official launch of Salamtek, a national initiative and consortium focusing on developing, deploying, and promoting innovative solutions and applications to tackling distracted driving.

Partnerships with key national organizations on road safety solutions were strengthened during the academic year. This was also reflected in January 2015 in the Center's 1st meeting of its Salamtek consortium which was established in November 2014, and which comprises the Ministry of Municipality and Urban Planning (MMUP), the Traffic Directorate of the Ministry of Interior (Muroor), Ooredoo Qatar, Qatar Insurance Company (QIC), Vodafone Qatar, Road Safety Studies Center (RSSC), and lately, Vodafone Qatar as the 6th member. The consortium will ensure a coordinated national effort to speed up the development of innovative solutions and address efficient mechanisms for their deployment in the market place.

The Letter of Intent with Muroor addressed collaboration and partnership in strategic traffic studies, accidents prevention, minimizing travel time, and public safety awareness. QMIC will also integrate a new feature in its Masarak iTraffic application to facilitate reporting accidents to Muroor.

A collaboration with QRCI initiated in October 2015 will engage scientists from both organizations to research new ways of performing data analytics research on the Center's collected data in a number of areas related to mobility, thus allowing faster progress and optimal results. It is also an opportunity for both entities to design new services that can be added to the Masarak portfolio or provided as part of a new standalone system.

In updating its iTraffic mobile application in July 2015, QMIC provided a number of new features that offer users several location-based services, designed to make their road travel in Qatar smoother and safer. Since its inaugural launch in 2012, the app has grown considerably with over 110,000 downloads to date. It is available in both Arabic and English languages, and is free for download on iOS and Android devices.

#### PROFESSIONAL DEVELOPMENT

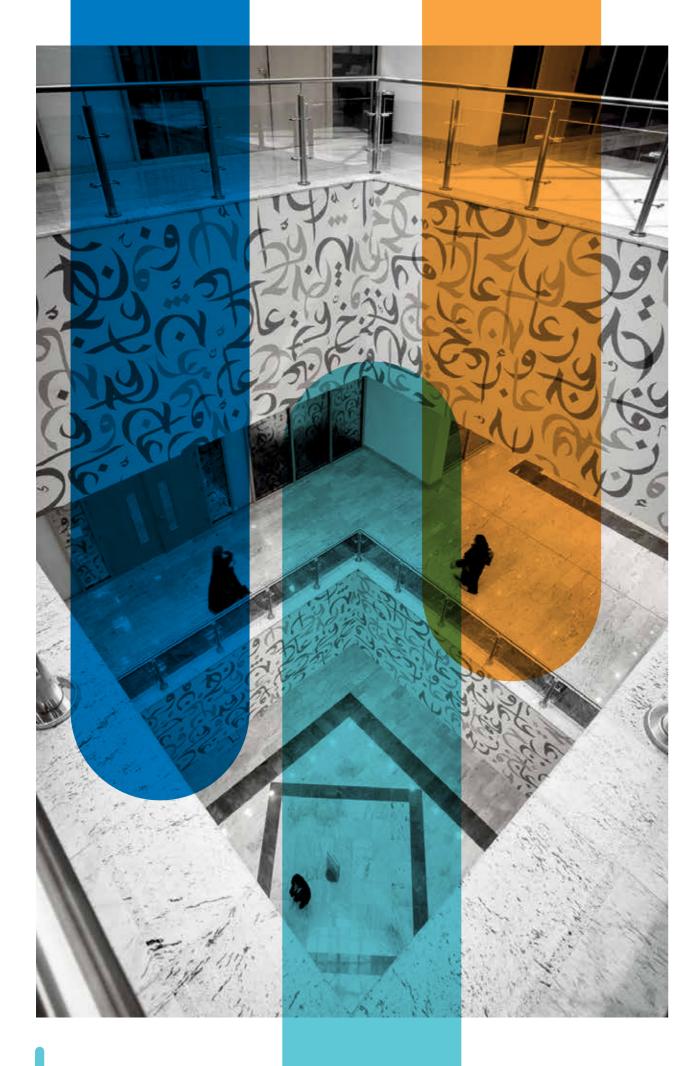
Professional development in-house and for the benefit of professionals in Qatar continues to drive QU's commitment to continuing education and lifelong learning, as well as enhancing its Qatarization efforts. This was evidenced by the increased number of professional development and continuing education programs offered by the Continuing Education Office, College of Pharmacy, College of Law, College of Medicine, National Center for Educator Development, Office for Faculty Instructional Development, among others.

During the academic year, the Continuing Education Office delivered more than 133 courses that benefitted 1700 attendees. The Office collaborated with more than 62 organizations to provide training.

Through its Continuing Professional Development Program (CPD), the College of Pharmacy engaged over 400 pharmacy professionals in 9 events held during the year. Notably, as of January 2015, healthcare practitioners are expected to provide evidence of CPD attendance as a prerequisite for renewing their practicing licensure in the State of Oatar

The week-long Qatar University ExxonMobil Teachers Academy (QUEMTA) under the National Center for Educator Development (NCED) continued to orient independent school teachers on active learning and inquiry-based teaching





techniques designed to engage students in the learning process and deepen their understanding of math and science concepts. Over 120 teachers have benefitted from the Academy's programs since its launch in 2011.

The NCED also conducted 27 training programs during Fall 2014 and Spring 2015 that included 91 workshops. A total of 3688 educators attended from 166 independent schools.

Professional development and training workshops were conducted by the College of Engineering that benefitted various stakeholders and partners: "Railway Engineering" (May 2015); "Pomp and Ceremonies -The architecture of Mughal Magnificence" (April 2015); "Variable Speed Drives" (April 2015); "Construction Safety" and "Aggregates Recycling Seminar," with Lafarge and Qatar Quarry, (March 2015); "Heritage Conservation in the Gulf" (January 2015) and "Introduction to Islamic Architecture" (October 2014) for QMA employees; and "BIM and Safety in Architectural Design", (December 2014).

New courses for legal professionals were designed and executed by the College of Law in cooperation with the Continuing Education Office. These included: Introduction to law for non-lawyers; Legal Perspective of Accounting; Gulf Certificate of Public Accounting GCPA- Part 4; Qatari HR Law; English Legal Terminology; and Professional Soccer Players Contract.

The College of Medicine engaged a number of healthcare professionals in various forums following its establishment in October 2014. A series of interactive workshops held on May 24-25, 2015 brought together a host of medical and healthcare professionals from leading organizations in Qatar including Hamad Medical Corporation (HMC), Primary Health Care Corporation (PHCC), SIDRA, University of Calgary in Qatar (UC-Q), and QU Biomedical Studies Research Center, to name a few. Over 30 current and aspiring health and medical educators from universities, hospitals and primary care institutions participated in the workshops and were given a Certificate of Competence in Teaching for Health Professions.

On March 22, CMED engaged 18 faculty members from different QU colleges and healthcare organizations in a workshop on current learning and teaching techniques in Problem-Based Learning (PBL) and Team-Based Learning (TBL). Themed "Current Trends in Learning and Teaching in Health Professions Education", the workshop was an opportunity for participants to be oriented on PBL and TBL, two contemporary learning and teaching strategies, and how authentic learning requires a "blend" of methods. Attendees included VPs, Associate VPs and centers' directors, as well as associate deans and medical doctors.

The College of Sharia & Islamic Studies presented over 25 various seminars in the academic year, addressing academic and social subjects of local, regional and global dimensions such as the electoral mechanism process in Islamic legitimacy, the Houthi movement in Yemen 'from cave to storm', and the most important emerging medical issues that require religious legislation, and more.

The QU Library conducted a training session in November 2014 for librarians at the Police Training Institute, Ministry of Interior. The workshop on "Modern Technologies in Library Public Services" covered Library Research Guides – LibGuides, Virtual Reference Services – LibAnswers and LibChat, as well as English and Arabic electronic databases. A workshop on bibliometrics and journal impact factor also included librarians across Qatar on the role of bibliometrics in

research evaluation, benchmarking a university against peer institutions and global, regional, and national averages.

QU research centers also provided instructional forums designed to promote awareness and upgrade professional skills of employees in national and other organizations. Members of the Ministry of Environment benefitted from a professional development workshop in May 2015 delivered by the ESC on air quality assessment and monitoring techniques for Qatar. CAM held 18 seminars during the year comprising presentations delivered by its faculty and international visitors to trainees from industrial partner organizations. CLU oriented several groups of high school science teachers on their labs' capabilities with the view to strengthening their skills and knowledge to better instruct and motivate their students. 26 forums were conducted by KINDI Lab as part of its collaboration activities with governmental, academic and industrial partners. QRSSC delivered workshops for the Traffic Department on Advances in Proactive Road Safety Analysis Techniques (December 2014); and Road Safety Research Findings (January 2015). This year the GPC held 14 seminars led by local and international experts, and two technical training courses on Flow Assurance (oil and gas) and Natural Gas Processing.

As part of its contribution to the development of the Qatari society, SESRI continued to provide training for QU and the Qatari community. The Institute hosted three four-day training workshops from January through March 2015, in the areas of Policy and Program Evaluation, Introduction to Research Design, and Intermediate Survey Sampling. More than 100 trainees; researchers, faculty, students, representatives from diverse fields and different national organizations had the opportunity to participate in the workshops that were led by SESRI researchers and several other researchers from the University of Michigan Institute of Social Research (ISR).

In collaboration with the Doha International Family Institute (DIFI) as part of their annual conference on Family Research and Policy, SESRI organized a pre-conference workshop "Application of MaxQDA in qualitative research data analysis" on May 2 that was presented by a researcher from the University of Michigan Institute of Social Research (ISR). More than 30 researchers, experts and academics had the opportunity to participate in the interactive workshop, using hands-on technical training with locally relevant data and examples. The course provided a brief overview of the types of qualitative data and analysis methods – both qualitative and quantitative – that can be carried out using MaxQDA.

#### CONSULTANCY

QU faculty lent their expertise on a number of forums particular to their respective disciplines and to a wide range of sectors across Qatar. During the academic year, they continued to provide services as expert advisers, consultants, mentors, instructors, keynote speakers, thesis adjudicators, and as members on professional boards and associations and charitable organizations.

Additionally, QU research centers provided services to industry through lab investigations and analyses. CAM executed more than 500 services for industry based partners in Qatar, and conducted 4291 scientific analyses for 541 clients. Services were extended by CLU to other scientific institutions in Qatar, such as Texas A&M University (TAMUQ), Qatar Energy and Environment Research Institute (QEERI), and Qatar Cardiovascular Research Institute (QCRI). Industry services were contracted from ExxonMobil Qatar, Oryx GTL among others, while services were rendered to Qatar Museums Authority for analysis on ancient

artifacts. CLU also participated in the efforts of a committee led by the Ministry of Interior to study and identify weapons and explosives in the State of Qatar. Consultancy activities conducted by SESRI included projects on the impact of the FIFA World Cup on the Qatari community and the wider GCC region, a domestic tourism survey with Qatar Tourism Authority, and a Health Expenditure and Utilization Survey sponsored by the Supreme Council for Health (SCH).

#### STUDENT LEADERSHIP AND VOLUNTEER ACTIVITIES

Student engagement in the community continued to be encouraged at the college-level, through the Student Activities Department, and student clubs and alumni chapters.

It is further fuelled by the organization's Center for Volunteerism and Civic Responsibility. In 2014/15, the Center connected over 1,500 volunteers with more than 50 campus and community groups. It also provided two service-learning programs -- participation in International Volunteer Day; and a student trip to Nepal.

During the academic year, student outreach activities were channeled through organization and execution of the Annual Charity Fair, Artists Market, Cultural Village, National Day and National Sports Day at QU, Eid charities, blood donation, sporting events, and holding events in observance of international commemorative days such as International Volunteer Day, World Mental Health Day, World AIDS Day, World Diabetes Month, National Environment Day, to name a few.

The annual leadership project conducted by the Leadership Course in the Department of International Affairs saw students from across QU participate in a series of charitable activities that engaged them on volunteerism and giving back to the community. During the last week of May and until midJune, 24 students (16 women, 7 men) comprising 5 teams led 5 charitable and awareness events that impacted in-need QU students, sick children, the elderly, and disadvantaged members of the society. Each leadership event highlighted the importance of connecting people to their society through acts of charity and compassion, thereby building a strong community invigorated by shared experiences.

The first event – QU Comedy Charity -- on May 29 by Team 'Empower Education' raised funds for QU students on financial assistance. The event included stand-up routines and dinner, the proceeds of which were donated to QU Financial Aid Office. Over 100 people participated in the event which raised nearly QR 50,000. The following day, the men's team paid visits to the elderly at the Al Ehsan – Qatar Foundation Seniors Home and organized an interactive day that included lunch and the distribution of gifts. The day also included a health and fitness awareness activity led by Team Serajm who coordinated with Weyak Qatar to hold an oncampus 5km marathon that drew around 200 people.

On June 5, a fun day for patients at the Children's Cancer Hospital saw Team Al Amal distribute gifts and organize games and entertainment that featured clowns, a large, fluorescent portable stage, as well as light refreshments and cake. The final activity, held on June 18 and led by Team Al-Joud, raised funds for persons incarcerated under the Qatar Prisons Authority for non-payment of debts. Through a number of charitable events that included such things as selling traditional Qatari food, and showing movies on campus, the team raised more than



55,000 QR which served to obtain the release of 4 prisoners, one of whom had been incarcerated for 4 years.

In the academic year, the Sports and Recreation Section conducted a wide range of programs focused on health and well-being, and a sporting lifestyle. One such program was a unique Discover Scuba Diving awareness program held on April 9 in cooperation with QU Security and Safety Section, Lekhwiya Qatar, Qatar Coast Guard, Poseidon Dive Center, Dive Raid Qatar, Qatar Sub, and VLCC Wellness Qatar.

The event, which was organized for the first time at QU, drew 300 participants, including 150 students across QU colleges. It also included training for children 8 years and above conducted by members from Poseidon Dive Center. Its objective was to orient QU community members on scuba diving activities at QU as well as on diving equipment and techniques. It was also an opportunity to build community awareness on scuba diving in Qatar in keeping with the country's growing sports culture and its commitment to advancing awareness on the marine environment and its importance to the country's development.

The year's Cultural Village was an extravaganza of cultural and folkloric displays, theater and dance performances, traditional costume shows, exhibitions, art, poetry, food, singing and music.

Students from 19 nationalities came together for a 4-day celebration of QU's multicultural environment under the theme "Bab Rozq". Organized by the Student Activities Department, the annual event gave students the opportunity to celebrate and share their culture, heritage and traditions, and to demonstrate their volunteerism, teamwork, organization, interpersonal relations, and problem-solving skills.

Booths set up at the Men's and Women's Activities Buildings representing Algeria, Bahrain, Bangladesh, Chad, Egypt, India, Iraq, Japan, Jordan, Morocco, Oman, Palestine, Qatar, Somalia, Spain, Sudan, Syria, Tunisia, Yemen drew visitors from among the QU community and the wider society in the spirit of cultural respect, camaraderie, and goodwill.





#### رؤية قطر الـوطنية ٢٠٣٠

نظام تعليمي يرقى إلى مستوى الأنظمة التعليمية العالمية المتميزة ويزود المواطنين بما يفي بحاجاتهم وحاجات المجتمع القطري.

#### **QATAR 2030 VISION**

A world-class educational system that equips citizens to achieve their aspirations and to meet the needs of Qatar's society.