Achievement.
Collaboration.
Impact.

Annual Report
2018–19

Carnegie
Mellon
University
Qatar

Carnegie Mellon University Qatar

Carnegie
Mellon
University
Qatar

Acknowledgments

In 2004, Carnegie Mellon and Qatar Foundation began a partnership to deliver select programs that will contribute to the long-term development of Qatar. For 15 years, we have shared a mission: to provide a world class education to students in Qatar.

Carnegie Mellon University in Qatar thanks **His Highness Sheikh Tamim Bin Hamad Al Thani**, Amir of the State of Qatar, for his leadership and commitment to progress and education.

We also express our deep appreciation to **His Highness the Father Amir Sheikh Hamad Bin Khalifa Al Thani**, **Her Highness Sheikha Moza bint Nasser**, Chairperson of Qatar Foundation, and **Her Excellency Sheikha Hind bint Hamad Al Thani**, Vice Chairperson and CEO of Qatar Foundation, for their vision and leadership.

Contents

Carnegie Mellon University in Qatar

Carnegie Mellon
Vision and Mission

Our Vision

Carnegie Mellon University will have a transformative impact on society through continual innovation in education, research, creativity, and entrepreneurship.

Our Mission

To create a transformative educational experience for students focused on deep disciplinary knowledge; problem solving; leadership, communication, and interpersonal skills; and personal health and well-being.

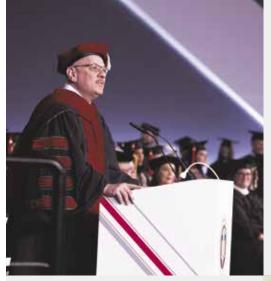To cultivate a transformative university community committed to:

(a) attracting and retaining diverse, world-class talent;

(b) creating a collaborative environment open to the free exchange of ideas, where research, creativity, innovation, and entrepreneurship can flourish; and

(c) ensuring individuals can achieve their full potential.

To impact society in a transformative way—regionally, nationally, and globally—by engaging with partners outside the traditional borders of the university campus.

From
the President

This year marks the 15th anniversary of Carnegie Mellon University's partnership in Qatar, and we could not be more pleased with the results of our collaboration in Education City. Since 2004, this campus has been an extraordinary success story for the nation and region, as well as for Carnegie Mellon.

CMU-Q reflects this university's commitment to apply a globally inclusive mindset to our role as educators, knowledge creators and engines of economic impact.

By empowering talented students with the tools they need in biological sciences, business administration, computational biology, computer science, information systems and more, we are preparing the next generation to be global leaders in a knowledge-based economy.

During our time in Doha, CMU-Q has graduated more than 800 young professionals who hail from 53 nations. Most of these alumni remain in Qatar to contribute to the nation's long-term development, and we are proud that more than 60 percent of CMU-Q students are women.

Even though CMU-Q alumni are still early in their careers, they are already contributing significantly to the development of Qatar's entrepreneurial sector and the international impact of the region's scientific research. Our alumni are in banking, government, art and culture, consulting, the technology sector, and many other areas.

I would like to thank our partners at Qatar Foundation for their continued trust in, and partnership with, Carnegie Mellon. We are in Qatar today bec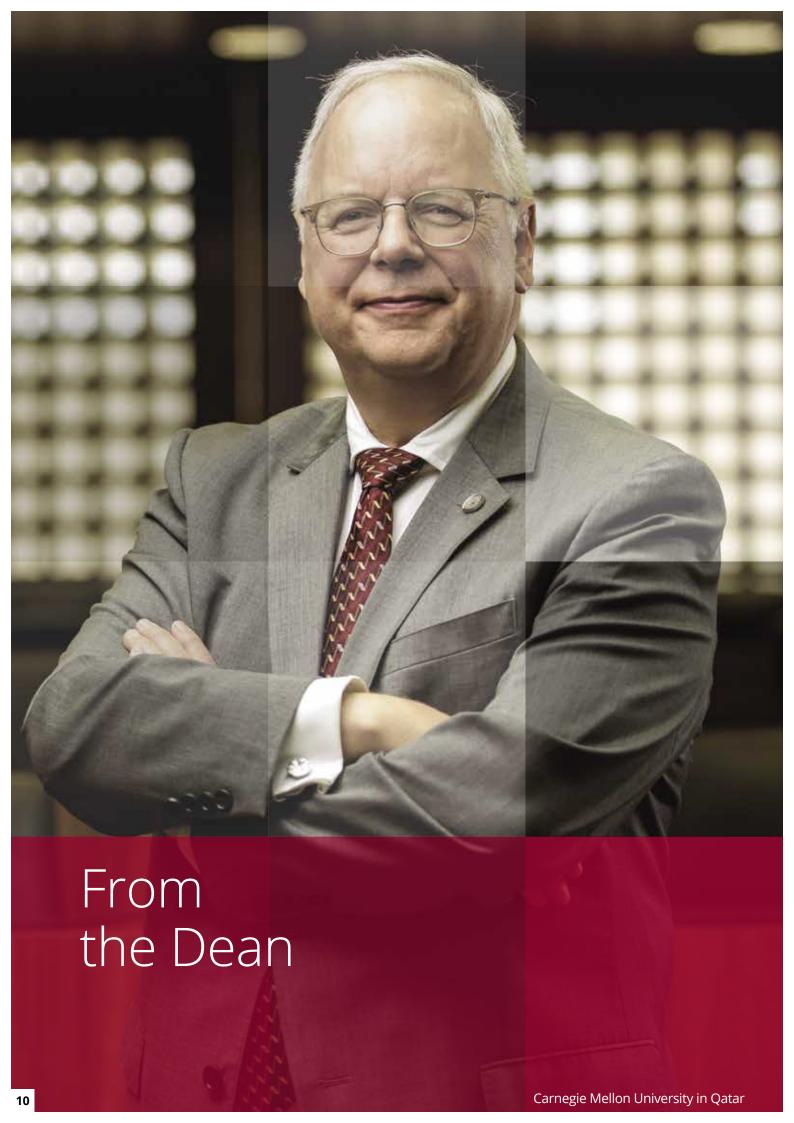ause of the vision and leadership of **His Highness the Father Amir, Sheikh Hamad bin Khalifa Al Thani**, **Her Highness Sheikha Moza bint Nasser**, and **Her Excellency Sheikha Hind bint Hamad Al Thani**. We look forward to continuing this relationship, which supports Qatar's long-term development and growth.

I invite you to explore the events and accomplishments from the past year, outlined in this annual report, along with objectives for the continued growth of CMU-Q. I congratulate you on these accomplishments, and I look forward to seeing what the coming years will bring.
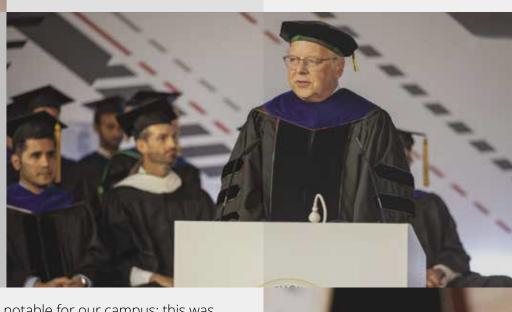
Farnam Jahanian
President
Henry L. Hillman President's Chair

From
the Dean

Welcome to the Carnegie Mellon University in Qatar *Annual Report 2018–19*, **a look back at an exceptional year of learning, growth and achievement for this campus.**

The 2018–19 academic year was notable for our campus: this was the 15th year that Carnegie Mellon delivered its unique approach to undergraduate learning in Qatar.

A 15-year anniversary is an opportunity to reflect on accomplishments and milestones. Since 2004, we have grown from 41 to roughly 400 students. To start, we provided just two academic programs: business administration and computer science. Over the years we have added programs in biological sciences, computational biology and information systems. Our faculty has grown more than three-fold, and we now occupy a beautiful building that hosts hundreds of events each year for students, members of the Education City community, and the general public.

The most important change is that each year, the number of our alumni grows. In 15 years, we have created an alumni network of more than 800 young professionals, most of whom remain in Doha to work, start families, and contribute to the growth and progress of Qatar.
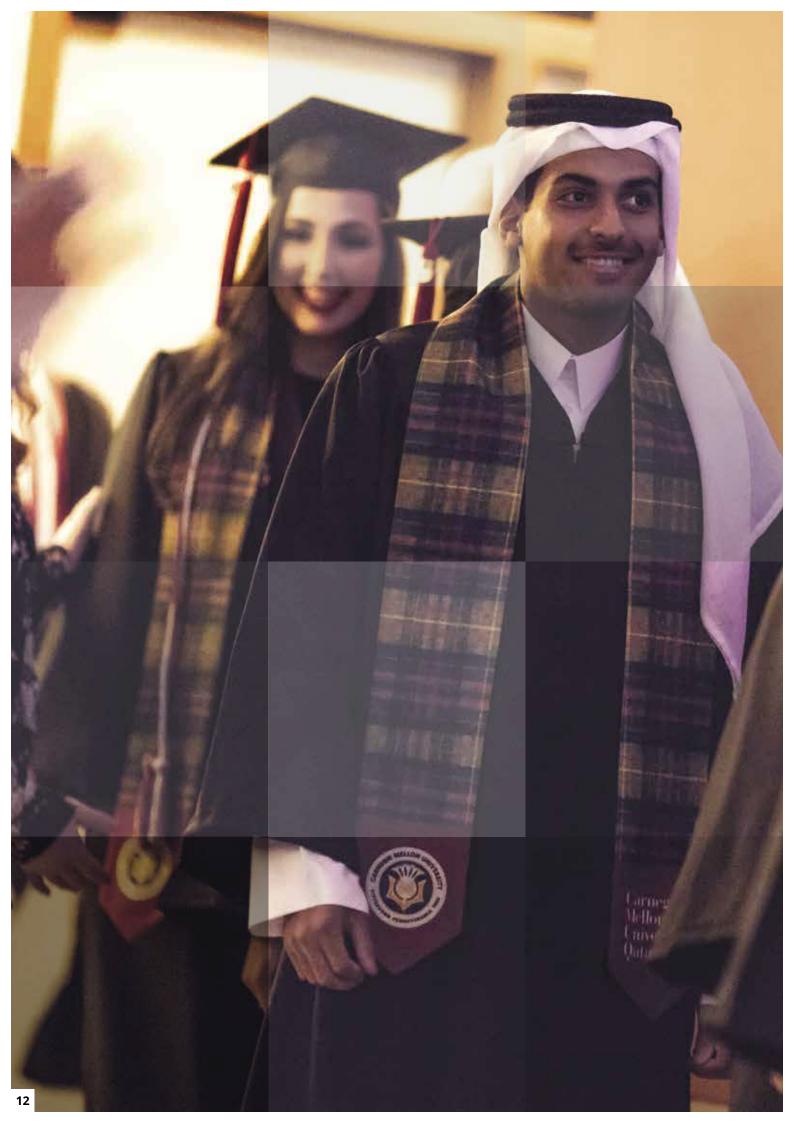
As you read through the accomplishments of the 2018–19 academic year, I encourage you to see them through the prism of our 15-year anniversary. We are proud to have matured into a vibrant community of learners and thinkers, with strong connections to both CMU worldwide and our Education City counterparts.

Michael Trick
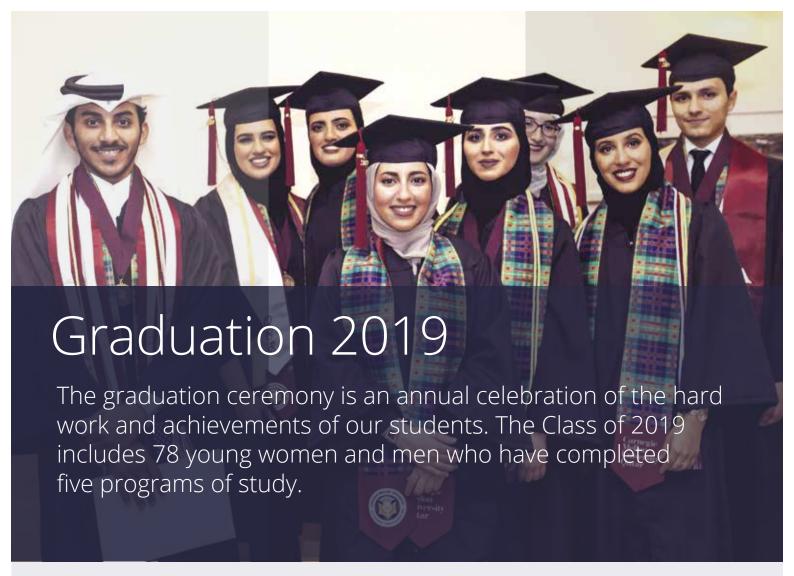Dean
Harry B. and James H. Higgins Professor of Operations Research
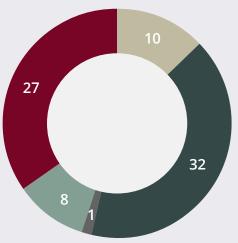
Achievement and Impact

Since our first class graduated in 2008, more than 800 people have completed their undergraduate education at Carnegie Mellon University in Qatar. As they build their careers, we follow their successes, connect them to one another, and encourage them to mentor the next generation of CMU-Q students.
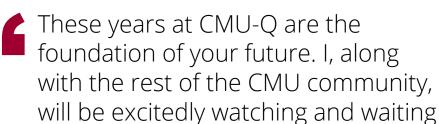
Graduation 2019

The graduation ceremony is an annual celebration of the hard work and achievements of our students. The Class of 2019 includes 78 young women and men who have completed five programs of study.

Graduates by program, Class of 2019

- 10
- 27
- 8
- 1
- 32

- Biological Sciences
- Business Administration
- Computational Biology
- Computer Science
- Information Systems

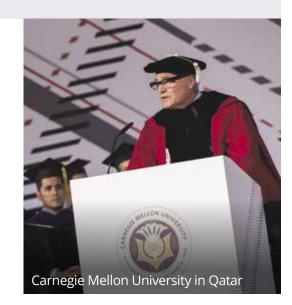> These years at CMU-Q are the foundation of your future. I, along with the rest of the CMU community, will be excitedly watching and waiting to see what you do next.

Michael Zamagias
Member of the Board of Trustees
Carnegie Mellon University
Keynote speaker

Carnegie Mellon University in Qatar

78
graduates

16
nationalities

46%
Qatari
nationals

41%
participated
in research

> We've made it through with the values of creativity, integrity and dedication at the heart of our work, and our support systems of friends, faculty and family right by our sides.

Amer Ahmad
Student Speaker
Class of 2019

Andrew Carnegie Society Scholars
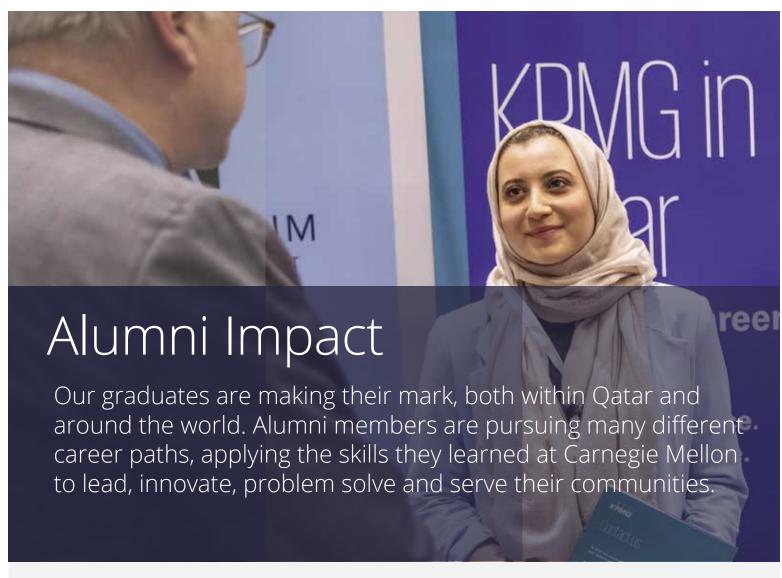
- **Aisha Abdulrahman Darwish Fakhroo**
- **Moussa Zekak**

Qatar Campus Scholars

- **Aisha Abdulrahman Darwish Fakhroo**
- **Omar Khattab**
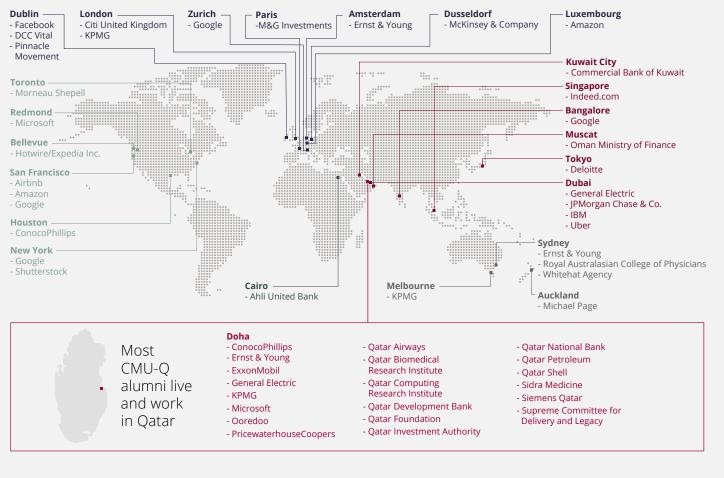- **Haris Saad Syed**
- **Moussa Zekak**

Outstanding Academic Achievement Awards

- Biological Sciences: **Moussa Zekak**
- Business Administration: **Haris Saad Syed**
- Computer Science: **Omar Khattab**
- Information Systems: **Abdulaziz Abdulhameed Al-Haddad**

Alumni Impact

Our graduates are making their mark, both within Qatar and around the world. Alumni members are pursuing many different career paths, applying the skills they learned at Carnegie Mellon to lead, innovate, problem solve and serve their communities.

Alumni are working at top international organizations

Dublin
- Facebook
- DCC Vital
- Pinnacle Movement

London
- Citi United Kingdom
- KPMG

Zurich
- Google

Paris
- M&G Investments

Amsterdam
- Ernst & Young

Dusseldorf
- McKinsey & Company

Luxembourg
- Amazon

Kuwait City
- Commercial Bank of Kuwait

Singapore
- Indeed.com

Bangalore
- Google

Muscat
- Oman Ministry of Finance

Tokyo
- Deloitte

Dubai
- General Electric
- JPMorgan Chase & Co.
- IBM
- Uber

Toronto
- Morneau Shepell

Redmond
- Microsoft

Bellevue
- Hotwire/Expedia Inc.

San Francisco
- Airbnb
- Amazon
- Google

Houston
- ConocoPhillips

New York
- Google
- Shutterstock

Cairo
- Ahli United Bank

Melbourne
- KPMG

Sydney
- Ernst & Young
- Royal Australasian College of Physicians
- Whitehat Agency

Auckland
- Michael Page

Most CMU-Q alumni live and work in Qatar

Doha
- ConocoPhillips
- Ernst & Young
- ExxonMobil
- General Electric
- KPMG
- Microsoft
- Ooredoo
- PricewaterhouseCoopers
- Qatar Airways
- Qatar Biomedical Research Institute
- Qatar Computing Research Institute
- Qatar Development Bank
- Qatar Foundation
- Qatar Investment Authority
- Qatar National Bank
- Qatar Petroleum
- Qatar Shell
- Sidra Medicine
- Siemens Qatar
- Supreme Committee for Delivery and Legacy

> A skill that we learn at CMU-Q is to be a reflective practitioner, to be solution-focused, not-problem-focused. It's about having the ability to recognize your mistakes, think about your next step and move towards it.
>
> **Maria Ali**
> Class of 2018

12
graduating classes

847
alumni members

alumni live on
5
continents

53
nationalities

Select achievements

MetLife Innovation Award

Maryam Al-Naemi and **Latifa Al-Thani**, who graduated in 2018, and **Maryam Al-Maadeed** and **Dana Al-Sheeb** from the Class of 2019, represented Qatar at the Injaz AlArab competition in Kuwait, winning the MetLife Innovation Award for their platform for finding fitness classes across Qatar.

Education Excellence Awards

Roda Al-Hor, **Maryam Al-Naemi** and **Latifa Khalid Al Thani** received gold medals from **His Highness the Amir Sheikh Tamim bin Hamad Al Thani** at the 12th Education Excellence Day Award ceremony. The Education Excellence Awards are the most prestigious academic and scientific awards in Qatar.

ICT Exporter of the Year

Haris Aghadi and **Abdulla AlKhenji**'s company, Meddy, which began as a class project at CMU-Q, was named ICT Exporter of the Year at the fourth annual Qatar IT Business Awards. This is Meddy's second recognition at the national awards: in 2016, Meddy won Tech Startup of the Year.

The Class of 2018 at Work

One year ago, the 90 new graduates completed their studies at CMU-Q and started their careers. In the year since they graduated, members of the Class of 2018 have made significant strides.
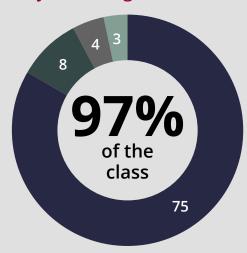
Contributing to Qatar

The majority of graduates from the Class of 2018 are working in Qatar and contributing to the knowledge-based economy. The top recruiter for this cohort was Qatar Airways, who hired six graduates. KPMG, Qatar Petroleum and the State Audit Bureau each hired four graduates.

Class of 2018 graduates work in a variety of sectors in Qatar, including government ministries, oil and gas, banking, health care, high tech and small and medium-sized enterprises.

Employment status one year after graduation

97% of the class

75

8

4

3

was employed, in grad school, or not seeking employment as of May 2019

- **Employed**
- **Graduate school**
- **Not in market**
- **Not employed**

Carnegie Mellon University in Qatar

Driving innovation

CMU-Q graduates have exceptional quantitative skills and experience working in interdisciplinary teams. These young professionals are excellent candidates for technology firms that drive innovation.

Members of the Class of 2018 are now working at Cisco, Microsoft, Rheinmetall Barzan, Salesforce and Siemens, both in Doha and internationally.

Collaborating and problem solving

With a rigorous interview process, consulting can be a difficult industry for new graduates to enter. In her senior year at CMU-Q, **Farha Khan** founded the Carnegie Consulting Club to help develop her skills in business consulting and build a mentorship network at the university.

From the Class of 2018, a record number of six students, including Khan, were recruited by consulting firms. Khan remains involved with the club, which has expanded in the year since she graduated.

Furthering their studies

Eight members of the Class of 2018 decided to go straight into graduate studies. Three are now studying at Carnegie Mellon University's School of Computer Science in Pittsburgh, rated one of the top computer science graduate programs in the world. Three are now at Hamad Bin Khalifa University, including one in the juris doctor program. One graduate is pursuing a master of science in computer science at Stanford, and one is studying applied computing at the University of Toronto.

Networking and Mentorship
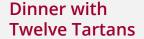
For our students, graduation is just the beginning of a new relationship with CMU-Q. Our alumni remain closely connected to us, keeping us up-to-date with their personal milestones and career successes. Throughout the year, our alumni return to CMU-Q to network with one another, and mentor and guide a new generation of students.

> CMU-Q keeps us part of the community by engaging our minds and providing us with a venue to develop those thoughts further.

Aisha Al-Darwish
Localization Advisor, Qatar Localization Resourcing
Qatar Shell
Class of 2010

Dinner with Twelve Tartans

A dozen alumni members came to share their workplace experiences with current students from each program at CMU-Q. The annual Dinner with Twelve Tartans is an opportunity for students to connect with and learn from CMU-Q graduates who are pursuing careers in Doha.

Alumni senior social

Each year, we bring together our alumni to reconnect with friends and faculty members, meet the new graduates, and network with one another. More than 100 alumni and graduating seniors gathered to celebrate the Class of 2019.

Carnegie Mellon University in Qatar

Class reunions

This year, members of the first CMU-Q graduating class gathered for their 10-year reunion. The first class was comprised of 35 students, 16 of whom are Qatari. Since 2008, about half of the class has pursued graduate studies, and two-thirds now live and work in Qatar. We also reconnected with the Class of 2013 for their five-year reunion.

> "I am a Qatari woman who has benefited so much from the CMU experience. I wonder if Andrew Carnegie ever thought he would have an impact on such a person, so far away from Pittsburgh."
>
> **Eman Al-Emadi**
> Head of Web Development, Qatar Olympic Committee
> Class of 2008

Dublin alumni gathering

Carnegie Mellon alumni from the Qatar campus, the Pittsburgh main campus, and the Carnegie Mellon Portugal program gathered in Dublin, Ireland to network and meet with current CMU-Q students. With a booming tech sector, Dublin is becoming a destination for CMU graduates in a variety of fields.

The ethics of artificial intelligence
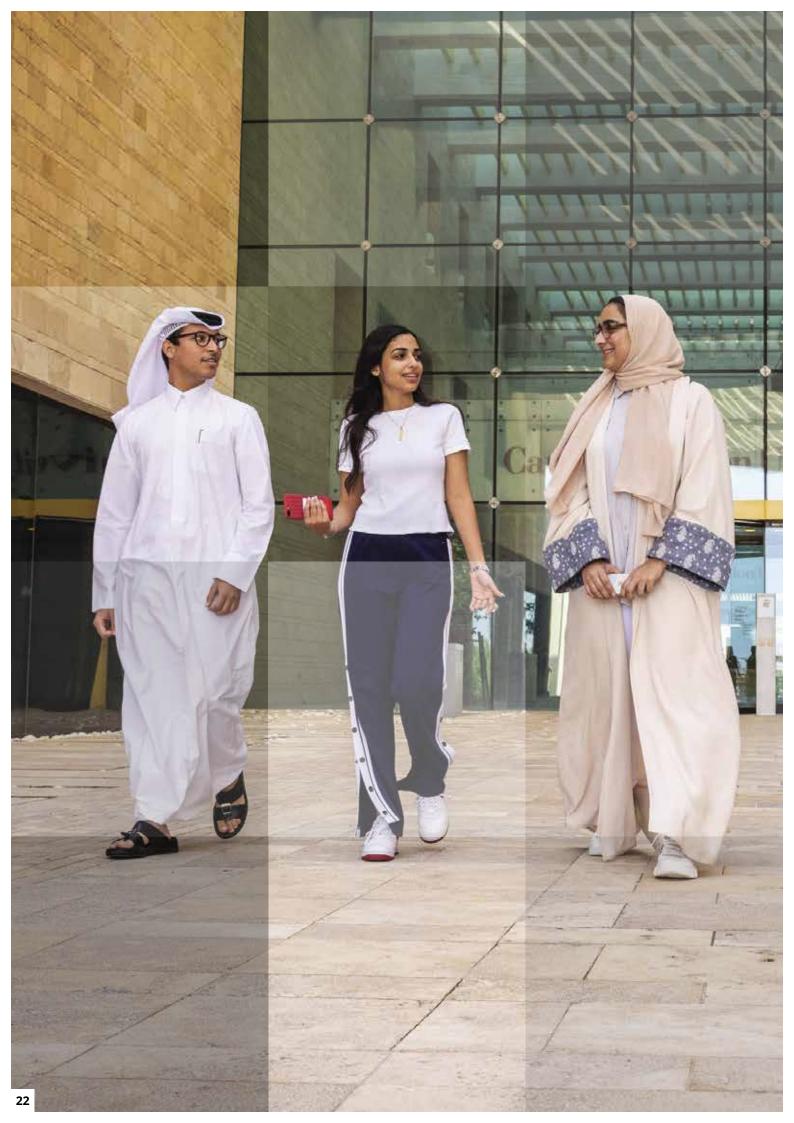
Alumni members, along with community partners and faculty and leadership from Carnegie Mellon's Qatar and Pittsburgh campuses, gathered for a special lecture on the ethics of artificial intelligence. Carnegie Mellon University's **David Danks** outlined how ethics should be integral to AI development in order to better understand the short- and long-term impact of technology.

Career mentoring

Tartan Talks is an alumni panel interview series that delves into the challenges and opportunities after graduation. This year there were four panels featuring a total of 17 alumni who live and work in Qatar. Alumni also returned for career information sessions, workshops and the Careers Platform networking events.
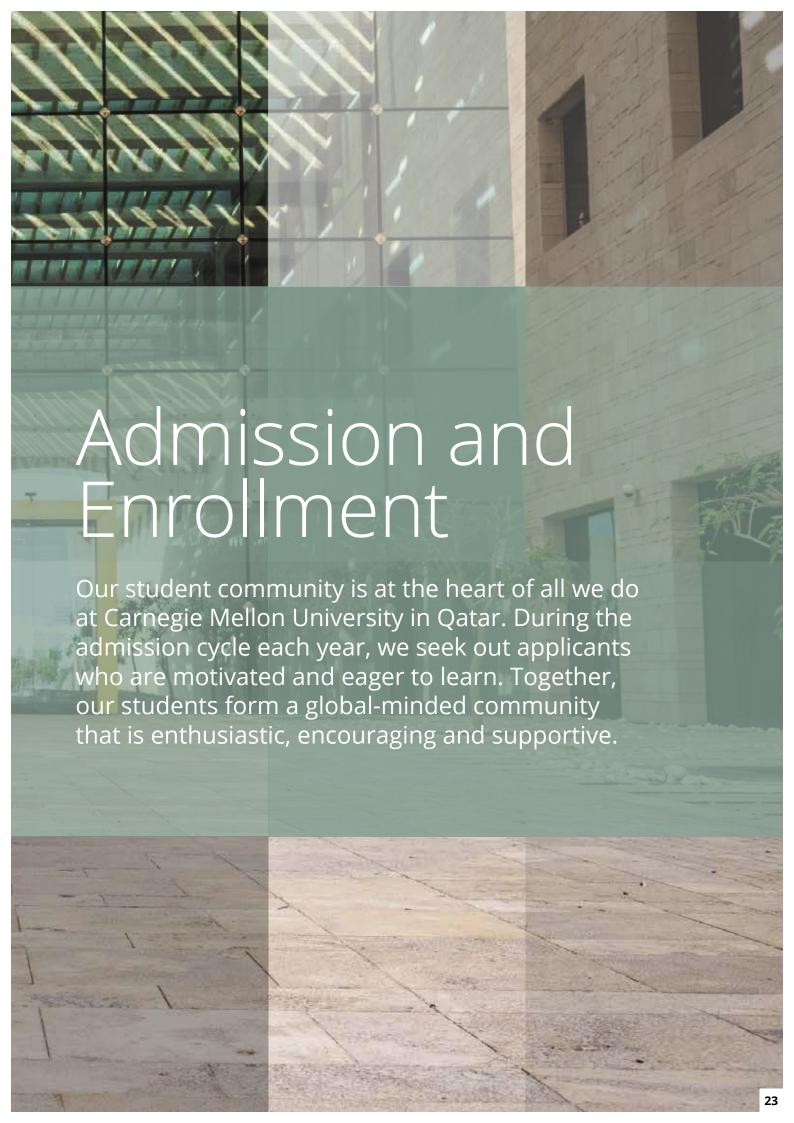
Tarnival alumni tent

The annual CMU-Q Tartan carnival is a favorite event for alumni, who return to network with one another and reconnect with the university. More than 100 alumni attended Tarnival 2018.

Admission and Enrollment

Our student community is at the heart of all we do at Carnegie Mellon University in Qatar. During the admission cycle each year, we seek out applicants who are motivated and eager to learn. Together, our students form a global-minded community that is enthusiastic, encouraging and supportive.

Events for Pre-College Students

Each year, we introduce nearly two thousand high school students to Carnegie Mellon University in Qatar. Pre-college workshops and events challenge the students and encourage them to explore career paths in business, science and technology. Many go on to enroll at CMU-Q.

Workshops for secondary students

- Alice Middle East Programming Competition
- Biotechnology Explorer Program
- Botball
- Experience CMU-Q
- Ibtikar Qatar
- Mindcraft
- Pi Day Mathematics Competition
- Summer College Preview Program
- Computer Science Institute

Summer College Preview Program

Secondary school students from across Qatar spent three weeks learning about the college experience during the Summer College Preview Program. SCPP 2018 was the largest in CMU-Q history, with 79 students participating.

> I had a plan which shifted once I participated in SCPP. That's how I joined CMU-Q and now I have a career I'm passionate about.

Ghaya Al Sulaiti
Business Analyst, Nakilat
Class of 2015

Experience CMU-Q

Her Excellency Sheikha Hind bint Hamad Al Thani, Vice Chairperson and CEO of Qatar Foundation, visited CMU-Q for the launch of the Experience CMU-Q pre-college event in October. More than 150 students from 35 Qatar high schools spent the day on campus learning about the fields of business, science and technology. CMU-Q held a second workshop in January 2019.

Pi Day 2019
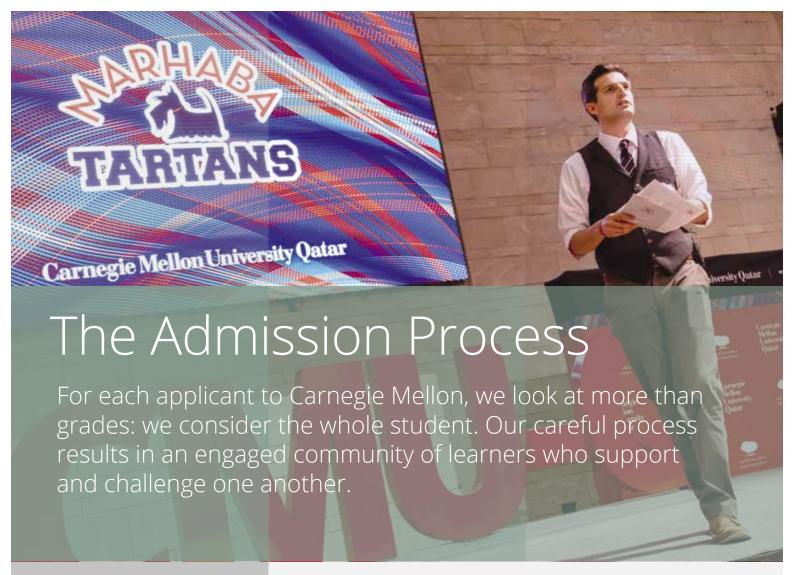
A team from the American School of Doha took the top prize at CMU-Q's fourth annual Pi Day Mathematics Competition. More than 400 students from 65 Qatar schools competed in the first round, with only four teams advancing to the finals. Fifty One East provided the prizes for Pi Day 2019.

15th edition of Botball

A team from Qatar Academy won the overall title at CMU-Q's annual Botball competition for high school students. The competition, which was launched by CMU-Q in 2005, brought together 15 teams to program a robot through a complex game board.

The Admission Process

For each applicant to Carnegie Mellon, we look at more than grades: we consider the whole student. Our careful process results in an engaged community of learners who support and challenge one another.

Class of 2022

702
applications

96
students
enrolled

26
nations
represented

"CMU-Q's interdisciplinary approach to education will offer you many opportunities to reach your full potential. Look around you to see how you can tackle challenges within a local and global context."

Dr. Amal Mohammed Al Malki
Founding Dean, College of Humanities and Social Sciences
Hamad Bin Khalifa University
Keynote speaker, Convocation, Class of 2022

Carnegie Mellon University in Qatar

Recruitment for the Class of 2023

Our primary geographic focus for recruitment is Qatar, and we participated in Education City visits to more than 40 schools in the country. We also took part in Discover Education City, a two-day collaborative event that hosted more than 1,000 people.

We also look beyond Qatar for qualified and interested applicants. As part of the Education City roadshow, our admission team travelled to Greece, Jordan, Kuwait, Lebanon, Morocco and Oman to meet with prospective students.
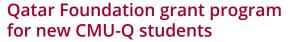
Marhaba Tartans

There were more than 80 newly admitted students and their parents at Marhaba Tartans 2019. The evening is an opportunity for incoming students to meet their professors and future classmates, and learn more about studying at CMU-Q.

> To be accepted to CMU, you demonstrated excellence and a strong sense of character, which you will certainly build on during your time at CMU.

Saleh Al-Raisi
Corporate Planning Analyst, Nakilat, Class of 2014
Keynote speaker, Early Decision Dinner

Qatar Foundation grant program for new CMU-Q students

Qatar Foundation introduced a new need-based grant program for CMU-Q students entering the Class of 2023. Available to students of all nationalities, grants of up to 100% of the cost of attendance were offered based on financial circumstances. The grant program will provide outstanding support for this class, and help ensure a diverse, competitive and engaged student body.

Early Decision

CMU-Q welcomed the first 20 students of the Class of 2023 at a dinner to introduce the students and their parents to the community. This is the largest group of Early Decision students since CMU-Q introduced the process in 2017.
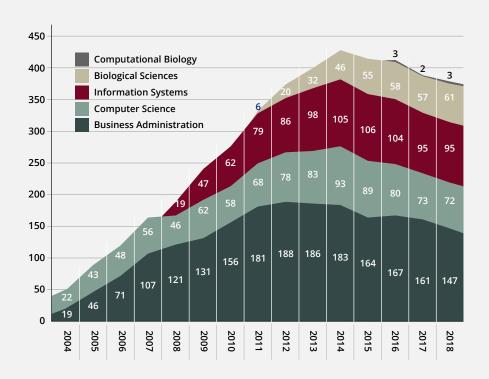
Our Student Community

The CMU-Q student community is vibrant and diverse, reflecting our continued commitment to the human development pillar of the Qatar National Vision 2030.

38 nations represented

Albania	India	Korea	Philippines	St. Kitts and Nevis
Australia	Indonesia	Kuwait	Qatar	Sudan
Bangladesh	Iran	Lebanon	Romania	Syria
Canada	Iraq	Moldova	Russia	Tanzania
China	Japan	Nepal	Saudi Arabia	Tunisia
Egypt	Jordan	Oman	Serbia	United Kingdom
France	Kazakhstan	Pakistan	Sri Lanka	USA
Georgia	Kenya	Palestine		

Students enrolled, by program

	Computational Biology
	Biological Sciences
	Information Systems
	Computer Science
	Business Administration

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Computational Biology								6					3	2	3
Biological Sciences									20	32	46	55	58	57	61
Information Systems					19	47	62	79	86	98	105	106	104	95	95
Computer Science	22	43	48	56	46	62	58	68	78	83	93	89	80	73	72
Business Administration	19	46	71	107	121	131	156	181	188	186	183	164	167	161	147

From Carnegie Mellon University in Qatar registrar

Student body composition

63% Female

37% Male

45% Qatari

55% Other nations

Financial aid

Financial aid options are a vital component of a diverse, competitive and strong CMU-Q student community. In 2018-19, six types of financial support were available for our students:
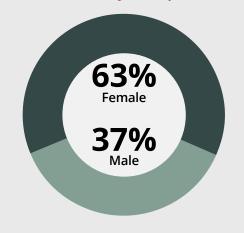
- Amiri scholarship, Ministry of Education and Higher Education
- Sponsorship from a national company
- Qatar Foundation financial aid
- Qatar Foundation scholarship
- Carnegie Mellon University in Qatar scholarship
- FAFSA loans for U.S. citizens
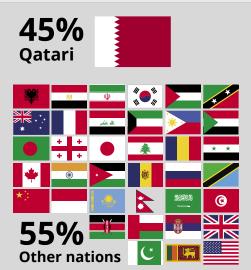
Companies who sponsored CMU-Q students

- Alfardan Group
- Amiri Diwan
- beIN Sports
- Chairperson's Office
- Embassy of the State of Kuwait
- Embassy of the Republic of Serbia
- Ministry of Administrative Development, Labour and Social Affairs
- Ministry of Commerce and Industry
- Ministry of Defense
- Ministry of Education and Higher Education
- Ministry of Transport and Communications
- Ooredoo
- Qatar Airways
- Qatar Chemical Company
- Qatar Foundation
- Qatar National Bank
- Qatar Petroleum
- Sidra Medicine
- Siemens Qatar

378 students enrolled

96 first-year students

Academics

In each of our five undergraduate programs, CMU-Q students develop a firm grounding in theory and quantitative skills. We then challenge them to apply their knowledge as they create, collaborate with one another, and work across disciplines.
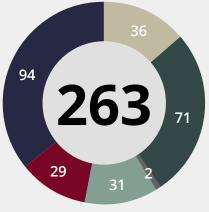
Academics at CMU-Q

At Carnegie Mellon, we begin with a broad introduction to the liberal arts and sciences during the first semesters. Students then focus on major core classes in the middle semesters, and they deepen and broaden their scope in the last semesters through advanced electives.

263 courses offered over 3 semesters

- 36
- 94
- 71
- 2
- 31
- 29

- Biological Sciences
- Business Administration
- Computational Biology
- Computer Science
- Information Systems
- Arts and Sciences

5 undergraduate programs

24 students spent a semester in Pittsburgh

Minors were offered in 15 different subject areas
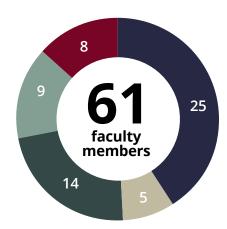
- Arabic Studies
- Biological Sciences
- Business Administration
- Cognitive Neuroscience
- Computational Biology
- Computer Science
- Economics
- English Studies
- Global Systems and Management
- History
- Information Systems
- Mathematical Sciences
- Neuroscience
- Professional Writing
- Psychology

The CMU-Q faculty

Our faculty members are experts in their fields and dedicated to undergraduate education. Faculty members provide individualized attention and focused instruction so that all students can reach their potential.

There are 7 students for every 1 faculty member

61 faculty members

- 25
- 8
- 9
- 14
- 5

Department

- Arts and Sciences
- Biological Sciences
- Business Administration
- Computer Science
- Information Systems

> The courses you take at CMU-Q prepare you for work: it's not just the quality of data that matters, it's also the way you present and put things together.

Hussain Abdulla Hejji
Marketing and Economics Scheduling, Qatar Shell
Class of 2013

Meritorious Teaching Award 2019

Serkan Akgüç received the Meritorious Teaching Award at the graduation ceremony for the Class of 2019.

New faculty members

- **Andres Amerikaner**, visiting assistant professor, English
- **Lauren Burakowski**, assistant teaching professor, psychology
- **Ebru Genç**, visiting assistant professor, marketing
- **Pia Gomez Laich**, assistant teaching professor, English
- **Bonnie Youngs**, teaching professor, French and francophone studies

Promotions

- **Khaled Harras**, teaching professor, computer science
- **Christos Kapoutsis**, associate teaching professor, computer science
- **Teresa MacGregor**, senior librarian
- **Benjamin Reilly**, teaching professor, history

Biological Sciences

Students develop a strong foundation in the natural sciences, while receiving rigorous training in the five core areas of biology: genetics, biochemistry, cell and developmental biology, neuroscience, and computational biology.

Class of 2019 scholars

Aisha Fakhroo and **Moussa Zekak** were chosen as the Andrew Carnegie Society Scholars for the Class of 2019. Fakhroo and Zekak are the first ACS Scholars from the Biological Sciences Program on the Qatar campus.

UN Young Champions of the Earth

Dina Altarawneh, who graduated in May 2019, was named one of five finalists for the UN Young Champions of the Earth competition for the West Asia region. She proposed a zero-waste grocery store that would be the first of its kind in the Middle East.

Frontiers of Oncology

Sophomore student **Abdullah Shaar** co-authored a *Frontiers of Oncology* article that investigates the role of a proto-oncoprotein in human malignancies. Shaar worked on the project during an internship at the National Center for Cancer Care and Research at Hamad Medical Corporation.

Carnegie Mellon University in Qatar

Breast cancer therapy research

A team led by **Ihab Younis** discovered a new avenue of research that could lead to more effective breast cancer treatment. Younis and alumnus **Ettaib El Marabti** authored a paper in *Frontiers in Molecular Biosciences* titled: "The cancer spliceome: Reprogramming of alternative splicing in cancer."

36
Biological Sciences courses

61
students

60
alumni

Wimmer Faculty Fellow

Mohamed Bouaouina was named a 2019-20 Wimmer Faculty Fellow at Carnegie Mellon's Eberly Center for Teaching Excellence and Educational Innovation. Bouaouina will design and integrate an introductory sequence of online learning modules for the CMU-Q cell biology course.

New molecular biology lab

Gordon Rule established a new lab with a team of students investigating the molecular basis of how glutathione transferase inhibits a kinase. This work could lead to a new class of anti-cancer agents.

> I spent all of my time researching at CMU-Q, which is now reflected in the work I do. I am able to do this job because of the laboratory skills I developed at CMU-Q.

Saad Rasool
Research Specialist, Sidra Medicine
Class of 2018

HBKU collaborations

Nesrine Affara delivered a seminar for the Life Science Seminar Series at Hamad Bin Khalifa University, sharing insights into the mechanisms that link humoral immunity, inflammation and cancer.
Ihab Younis presented his work on deregulation of minor intron splicing as a critical contributor to breast cancer at the College of Health and Life Sciences Research Day.

Business Administration

Students learn to take a quantitative, analytical approach to business problem solving, while building a solid foundation in accounting, finance, economics, marketing, operations, management information systems and business communications.

Qatar Stock Exchange competition

A CMU-Q team took the top prize at Qatar Stock Exchange's financial competition for university students. **Maha Al-Kaabi, Fahad Salah Bahzad, Abraham Farooqui** and **Faisal Mir** presented their three-pronged approach to increasing stock market liquidity to a panel of independent judges.

Qatar University business competition

At the Power of Analytics Business Case Competition hosted by Qatar University, a CMU-Q team placed second. First-year students **Jawaria Abbas, Sara Hussein** and **Omaia Khandaker** were in their first semester when they participated in the competition.

Carnegie Mellon University in Qatar

Quick Startup 2019

CMU-Q students **Ommar Aburaddad, Mohamed Hamdi, Faisal Mir** and **Haris Syed** took first place at Quick Startup with an app to help drivers keep their eyes on the road. Quick Startup is CMU-Q's entrepreneurship competition. Organized by faculty member **George White**, participants create a business plan during the weekend-long competition.

Health care initiative

Mustafa Akan's work designing a more equitable distribution of donor livers is part of CMU's new Tepper Health Care Initiative, which supports faculty members' research advances in health care. Over the 2018-19 academic year, Akan was invited to present his research to the American Transplant Congress, the American Society of Transplant Surgeons, the INFORMS Healthcare Conference, and the Australian Society of Operations Research.

71
Business Administration courses

147
students

433
alumni

Hamad Medical Corporation collaboration

Cecile le Roux established an internship opportunity for students within the psychotherapeutic unit of HMC's National Center for Cancer Care and Research. She also serves as an expert advisor for the steering committee on the HMC Workplace Stress and Well-being Policy Taskforce.

> My major in Business Administration was one of the best decisions of my life. If you start from a good place and have a good foundation, you will move up.

Mohammed Hadi Takiddin
Head of Finance, Commercial Branch, Qatar Museums
Class of 2013

Innovation and entrepreneurship

George White delivered two invited talks at Doha's Global Entrepreneurship Week on emotional intelligence in leadership. He also gave an invited talk at Qatar University on managing innovation. White is an organizer of the Al Fikra Qatar National Business Plan competition hosted by Qatar Development Bank.

Sports analytics

John O'Brien and **Fuad Farooqi** developed a course in analyzing data from sports leagues. O'Brien and Farooqi are developing a hub of educational, research and outreach activity in the area of sports analytics, including a dashboard that analyzes statistics from the QNB Stars football league.

Computer Science

Students learn the core skills of mathematical reasoning, algorithmic thinking, and the fundamentals of programming so they can explore, design and create the technologies that are transforming modern life.

School of Computer Science award for research

Omar Khattab received the Alumni Award for Undergraduate Excellence in Computer Science by CMU's School of Computer Science. The award was given for Khattab's senior thesis, which he completed under the mentorship of **Mohammad Hammoud**.

Computational Biology graduate

Youssef Kanbour became the second student to graduate from CMU-Q's highly selective Computational Biology Program. Following the School of Computer Science curriculum, the interdisciplinary program includes core coursework in computer science, biology, computational biology, mathematics and science.

Carnegie Mellon University in Qatar

31
Computer Science courses

72
students

137
alumni

Oman programming competition

Computer science students **Mohammed Yusuf Ansari, Mohammed Nurul Hoque** and **Akhyar Kamili** won the Oman Collegiate Programming Competition at Sultan Qaboos University. A second CMU-Q team, including **Sameer Ahmad, Ishaq Yusuf Haj Hasan** and **Hari Krishna**, placed fifth in the competition. A total of 52 teams from 22 institutions participated.

Oman programming bootcamp

A team of computer science students placed second at the Hello Muscat ICPC Programming Bootcamp in Oman. **Keivin Isufaj, Swapnendu Sanyal** and **Omar Sinan** spent an intensive six days learning programming concepts and competing in daily contests.

> Courses are very relevant in the workplace. Algorithms, for example—we implement them every day, technically following the same approach but on a bigger scale.

Zeinab Khalifa
Digital Channels Engineer, Vodafone
Class of 2016

International faculty collaborations

- **Christos Kapoutsis** was selected for the International Federation for Information Processing's Working Group 1.2, "Descriptional Complexity."

- **Kemal Oflazer** was invited to serve as associate editor of Computer Speech and Language (Elsevier).

- **Giselle Reis** was elected to the steering committee for "Logical Frameworks and Meta Languages: Theory and Practice Workshops." She also served as program chair for the 2018 Logical Frameworks and Meta Languages: Theory and Practice (LFMTP).

Qatar hub for Google Hash Code competition

Teams of coders gathered at CMU-Q for the Google Hash Code competition, a contest that challenges the programming skills and creativity of students and professionals from around the world. CMU-Q hosted the only hub in Qatar.

Information Systems

Students learn to analyze how things connect and work together, identify problems and challenges, and use technology to design and implement solutions that improve productivity and efficiency.

International Invention Fair Middle East

Mohammed Larri, a first-year student in information systems, won a gold medal at the 11th International Invention Fair Middle East (IIFME) in Kuwait. Larri invented an offside detector for football matches that detects the position of the players, and sends an automatic notification to the referee when a player is offside.

29
Information Systems courses

95
students

207
alumni

Power of Analytics Business Case Competition

A student team placed third at the Power of Analytics Business Case Competition hosted by Qatar University. **Yasmin Abdelaal, Zainab Akhtar** and **Aya El-Sakka** were juniors in the Information Systems Program.

Carnegie Mellon University in Qatar

Information Security

Nui Vatanasakdakul spoke on digital transformation and risk in the financial sector at the 5th Annual Information Security Conference for the Financial Sector organized by Qatar Central Bank. She also spoke at the launch ceremony of **Mohammed Al-Dorani's** book, *Cyber War: Qatar Blockade – GCC Countries* on cybersecurity strategies.

The future of information systems at CMU

Joe Mertz visited CMU-Q to discuss the future direction of information systems at Carnegie Mellon. Mertz, who is the interim director of the undergraduate information systems program at CMU's Dietrich College, emphasized the interdisciplinary nature of the program, as well as the wider impact of technology.

Nursing informatics initiative

Dan Phelps delivered workshops on nursing informatics at several hospitals in the Hamad Medical Corporation network. The workshops are part of a new initiative by Hamad to empower nurses and encourage research in the area of health informatics. More than 500 nurses attended the sessions.

> The most valuable thing I learned in my degree is that solving information systems problems involves real people, not just technology.

Ibrahim Soltan
Technical Specialist, Microsoft
Class of 2017

Alan Male's A Companion to Illustration

Susan Hagan was invited to contribute a chapter to **Alan Male's**, *A Companion to Illustration: Art and Theory*, a benchmark reference volume that explores the definition of illustration and its impact on culture. Hagan's chapter discusses illustrators as collaborative problem solvers.

Climate change and sustainability

Chadi Aoun presented a workshop on climate change and sustainability at the Qatar Investment Authority, as well as a lecture on green information systems at the THIMUN Qatar Leadership Conference. In 2019, he was invited to serve on the SustainableQatar advisory board.

Arts and Sciences

All students learn to draw connections and work effectively outside their major through study in the arts and sciences, including required courses such as chemistry, English, math and physics, and electives in a wide variety of disciplines.

Qatar University Math Championship

CMU-Q students took the three top spots in the men's division of the Qatar University Math Championship: the first-place winner was **Keivin Isufaj, Muhammad Nahin Khan** took second and **Swapnendu Sanyal** was third. **Leiyue Chen** took fifth place in the women's division.

Brain Awareness Week workshop

Students in **Jennifer Bruder**'s cognitive neuropsychology class created and taught a workshop to two classes of elementary school children. The workshop, which was inspired by International Brain Awareness Week, included interactive activities for the children to learn about how the brain works.
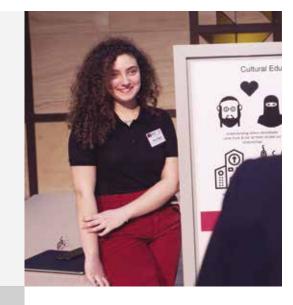
Liberal Arts International Conference

Several CMU-Q faculty members, including keynote speaker **Dudley Reynolds**, presented research at the seventh annual Liberal Arts International Conference. Hosted by Texas A&M University at Qatar, the conference aimed to shed light on the liberal arts in an ever-changing and dynamic global era.

Carnegie Mellon University in Qatar

Meeting of the Minds classroom showcase

At the Meeting of the Minds symposium, students in two Arts and Sciences electives showcased their work. Students in **Bonnie Youngs**' course displayed essays and posters on the topic of understanding cultural complexities. Students in **Ramesh Krishnamurti**'s architecture class showcased their work employing machine learning to resolve typology.

Qatar Faculty Forum

Benjamin Reilly shared his research at the Qatar Faculty Forum, Qatar Foundation's regular academic seminar series for the liberal arts and sciences. Reilly discussed how the risk of malaria affected travel to Rome in the years 1400 to 1850.

English Language Centre symposium

Dudley Reynolds was the keynote speaker at the Community College of Qatar's English Language Centre (ELC) symposium. The symposium began with Reynolds' plenary session on building a coherent system for English language education.

Exploring Math lecture series

The second season of the lecture series, Exploring Math, included talks from series organizer **Niraj Khare,** as well as **Mohamed Zayed** and Qatar University's **Abdelouahed Hamdi**. The series delves into the beauty, impact and development of classical mathematical concepts.

Spanish language trip to Spain

Erik Helin led a study trip to Spain for students to enhance their Spanish language skills. Ten students took classes at an institution in Seville and explored the area to practice the language and learn more about culture and history.

Interdisciplinary Collaboration

Students at CMU-Q are encouraged to reach beyond traditional program boundaries to solve problems. Interdisciplinary study encourages creativity, innovative problem solving and teamwork.

IGEM competition

A team of students from four programs developed a rapid, inexpensive test using CRISPR technology to screen for carriers of sickle cell anemia. They presented their project at the International Genetically Engineered Machine (IGEM) competition in Cambridge, Massachusetts. Al Khalij Commercial Bank (al khaliji) generously supported the IGEM 2018 team.

Technology and culture

Faculty members from computer science and business administration led an educational trip to Tokyo to explore how Japanese people have interwoven business, technology, and traditional culture.

Experiences in sustainable living

Faculty members from both information systems and biological sciences led a multidisciplinary trip to explore the innovative ways that Greece is approaching sustainability.

Coca-Cola business case
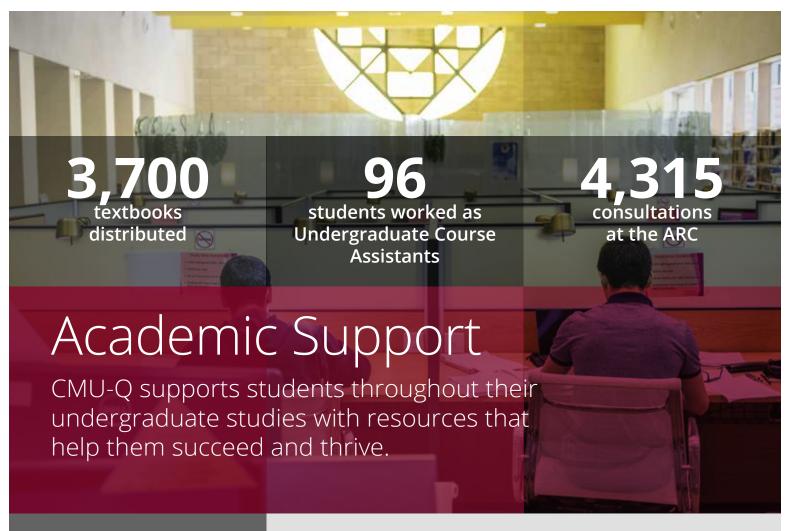
A student team worked with executives at Coca-Cola to create a marketing strategy. The students were part of the CMU-Q Consulting Club, where students from all disciplines can partner with real companies to learn how to solve complex business problems.

> It was a pleasure for us to work with this interdisciplinary student team and see their fresh ideas and enthusiasm for learning.

KV Rajan
Director of Human Resources
Coca-Cola Almana

3,700
textbooks
distributed

96
students worked as
Undergraduate Course
Assistants

4,315
consultations
at the ARC

Academic Support

CMU-Q supports students throughout their undergraduate studies with resources that help them succeed and thrive.

Library

The library is a resource for both studying and research, housing a large collection of print volumes, databases, ejournals and ebooks, and coordinating textbooks for all courses at CMU-Q.

Qatar National Library's Christopher Alario

Christopher Alario traced the history of the Qatar peninsula on maps at a lecture for the CMU-Q community. Alario is the information services librarian for historical maps at Qatar National Library.

CMU Libraries collaboration

CMU business and economics librarian **Ryan Splenda** visited the Qatar campus, delivering workshops for students in the supply chain management and organizational behavior classes.

Research into e-textbooks

At information literacy conferences in Europe and North America, **Teresa MacGregor** and **Alicia Salaz** presented their research into textbook format preference. The study looks at how libraries can maximize the learning value of e-textbooks by training students to use digital platform features more effectively.

Academic Resource Center

The ARC supports students as they develop the skills, strategies and behaviors to be confident, independent and active learners.

Freshman Edge 2018

Twenty newly enrolled students participated in the three-week Freshman Edge Summer Program in 2018. The project-based program provides new students with a head start on the college experience.

Student College (StuCo) Program

The StuCo program included eight mini courses designed and taught by students. The program is adapted from a similar initiative on CMU's main campus.

Outstanding Course Assistant

The ARC recognized the contributions of students who provide tutoring support at the first Outstanding Courses Assistant event. Fifteen students were nominated, and **Laila El-Beheiry**, a computer science major, won the award.

Community Engagement

We have strong, living connections to the global Carnegie Mellon community, Qatar Foundation and its entities, and our strategic partners in government and industry. These partnerships offer rich learning opportunities for our students as we help build Qatar's knowledge economy.

Thought Leadership

We strongly believe that universities should be a knowledge hub for the community, initiating the discussions that move society forward.

Pharmaceuticals in Qatar

Moderated by **Ihab Younis**, the panel included **Ahmed Al Mohanadi**, CEO of QLife Pharma, **Omar El-Agnaf**, acting executive director of Qatar Biomedical Research Institute, **Emad Mansour**, supervisor drug registration, Ministry of Public Health, and **Salvino Salvaggio**, senior director of implementation and VP RDI Office Management.

E-commerce in Qatar

The panel was moderated by **Nui Vatanasakdakul** and included **Faleh Al Naemi**, chairperson and managing director of Qatar Post, **Amna Jassim Sultan**, isteshara manager of Qatar Development Bank, and **Amina Ahmadi**, co-founder of Oola Sports.

Carnegie Mellon University in Qatar

The Dean's Lecture Series

For the Dean's Lecture Series, we host prominent industry leaders and government officials to share their expertise with the Qatar community.

> " The Dean's Lecture Series is an opportunity to speak directly to the students about issues that are crucial to Qatar. "
>
> **H.E. Dr. Ibrahim Ibrahim**
> Economic Advisor, Amiri Diwan

**His Excellency
Dr. Ibrahim Ibrahim**
Economic Advisor, Amiri Diwan
The development of Qatar's natural gas strategy: Challenges and responses

**His Excellency Sheikh
Abdulla Bin Saoud Al Thani**
Governor, Qatar Central Bank
Economic realities facing the MENA region and challenges facing Islamic fintech

Raj Reddy, University Professor of Computer Science and Robotics, Moza Bint Nasser Chair of Computer Science and Robotics, Carnegie Mellon University
AI: Background, history and future opportunities

Neil Walsh, Head of Cybercrime, Anti-Money Laundering and Counter-Financing of Terrorism Department, United Nations
Cybercrime: Challenges and methods of prevention

Adrian Wood, Chief Executive Officer, Siemens Qatar
The role of Siemens in supporting economic prosperity in Qatar

Andrew Faulkner, Managing Director and Chairman, Qatar Shell
International energy companies and their role in human development and sustainable growth

53
**Dean's Lectures
since 2011**

Our Strategic Partners

We are proud to have strong, collaborative relationships within Qatar's government and industry sectors. Each year, we strive to strengthen the connections with our strategic partners, and reach out to form new partnerships.

Executive education courses

We were pleased to welcome our strategic partners to campus for executive education courses taught by members of the CMU-Q faculty. This year, we offered courses in:

- Women's career development and negotiation
- Social engineering prevention
- Introduction to business negotiation
- Mastering innovation and corporate entrepreneurship
- Innovative-driven entrepreneurship
- Cyber resilience in the digital transformation age
- Advanced negotiation: Resolving conflict in the workplace

7
executive education courses

298
executive education participants

9
new memoranda of understanding

Memoranda of Understanding

Dean **Michael Trick** signed nine memoranda of understanding during the academic year, formalizing partnerships that will promote collaboration in science and research, and provide opportunities to students and graduates of CMU-Q.

Ashraf Abu Issa
Chairman and CEO
Abu Issa Holding

Mohammed Khalifa Al-Suwaidi
CEO, Aspire Zone Foundation
Director General, Aspetar

Nasser Al Naimi
Managing Director
Barzan Holdings

Bader Abdullah Al-Darwish
Chairman and Managing Director
Fifty One East

Abdulla Al Rwaili
Executive Director and Managing Director
Gulf Bridge International

Ahmed Ibrahim Al-Darwish
Chief Administration Officer
Qatar Chemical Company Ltd (Q-Chem)

Ahmed Hamad Al Mohanadi
CEO
QLife Pharma

Hassan Ibrahim Hassan Al Asmakh
Vice President and CEO
Regency Group Holding

Robert Crone
Acting CEO
Sidra Medicine

The Impact of Education

As an educational institution, we are in a unique position to influence and help develop the ways that people learn in Qatar. Through targeted programs, CMU-Q is enhancing learning opportunities in key areas.

Young Writers Open Mic Night

In partnership with the U.S. Embassy in Qatar, we celebrated local talent at the third Young Writers Open Mic Night at the Education City Student Center. Participants enjoyed an evening of comedy, poetry, music and spoken word performance by students and members of the wider community.

New internet protocol

CMU-Q worked closely with Qatar's Communications Regulatory Authority and Qatar University to create guidelines for Qatar organizations to transition to Internet Protocol, version 6 (IPv6). The transition will ensure that Qatar's learning institutions, government entities and businesses are prepared as the demand for internet connectivity increases.

INJAZ Qatar certificate of appreciation

INJAZ Qatar awarded CMU-Q a certificate of appreciation for our dedication and outstanding contributions. INJAZ Qatar offers programs for youth that encourage entrepreneurship and creativity.

Hassim Bin Jassim Center for K-12 Computer Science Education

Since joining forces in 2017, CMU-Q and the Jassim and Hamad Bin Jassim Charitable Foundation share a common goal: to foster students' computing skills and raise awareness of the importance of computer science to progress and development. This past year, the Hamad bin Jassim Center for K-12 Computer Science Education continued to expand and reach more students.

> " The center's goal is essential for the future of Qatar. "
>
> **Saeed Mathkar Al-Hajri**,
> Board Member and CEO
> Jassim and Hamad
> Bin Jassim Charitable
> Foundation

Alice Middle East

At this year's Alice Middle East Programming Competition, a team from Al Arqam Academy took first place. There were 111 students from 12 schools who participated in the fourth annual showcase of creativity and programming skills.

The original Alice software was developed at CMU and adapted for Qatar with a grant from Qatar National Research Fund. In partnership with the Ministry of Education and Higher Education, Alice Middle East is now part of the curriculum at all Qatar government schools that teach information communication technology. The Alice Middle East Programming Competition was also supported by Abu Issa Holding.

Mindcraft

Mindcraft is a workshop program for high school students that introduces the basic principles of computer science. Over the last three years, nearly 3,000 high school students have attended Mindcraft workshops at CMU-Q. The workshops introduce students to computational thinking, challenging them to program a robot through a maze.

This year, CMU-Q adapted Mindcraft for children in elementary school. CMU-Q introduced this new program—called Mindcraft Junior—at National Science Research Week.

Carnegie Mellon Connections

We are proud to be part of the Carnegie Mellon global community, connected to the scholarship, research, spirit and culture that defines Carnegie Mellon worldwide.

CMU leadership visit

CMU president, **Farnam Jahanian**, and members of CMU leadership and the Board of Trustees, visited Qatar to learn about the campus. While in Doha, the group toured CMU-Q and Education City and met with **Her Excellency Sheikha Hind bint Hamad Al Thani**, vice chairperson and CEO of Qatar Foundation, as well as CMU-Q alumni and students.

Entrepreneurs in Dialogue

To introduce the new Entrepreneurs in Dialogue series, CMU-Q hosted **Elijah Mayfield** to discuss the challenges of bringing early-stage technology innovations to market. Mayfield, who is now an entrepreneur-in-residence at CMU's School of Computer Science, created the startup LightSide Labs, which used technology to help school-aged children improve their writing skills.

Bill Brown Distinguished Lecture in Biological Sciences

The inaugural Bill Brown lecture featured **Ann Gibbons**, a science writer who is the author of *The First Human: The Race to Discover Our Earliest Ancestors.*

Distinguished Lectures in Biological Sciences are named in honor of **Bill Brown**, an honored professor of biological sciences at CMU who passed away in 2007.

Project Rwanda

Students from three of Carnegie Mellon University's global campuses met with the president of the Republic of Rwanda, **Paul Kagame**, to discuss their passion for education and technology. The students were participating in Project Rwanda, an initiative that is organized by CMU students from the Qatar, U.S. and Rwanda campuses.

John Patrick Crecine Distinguished Lecture in Arts and Sciences

Agnieszka Wykowska, who leads the Italian Institute of Technology's Social Cognition in Human-Robot Interaction unit, spoke to CMU-Q about research into how humans perceive and interact with robots.

Distinguished Lectures in Arts and Sciences are named in honor of **John Patrick Crecine**, dean of CMU's College of Humanities and Social Sciences from 1976 to 1983.

IMPAQT 2019

Ten students from each of the Qatar and Pittsburgh campuses participated in this year's IMPAQT program. IMPAQT, which stands for Initiating Meaningful Pittsburgh and Qatar Ties, is an annual student exchange that takes place during spring break.

Collaborations with Qatar Foundation

We are an integral part of the Education City community, with our students, staff and faculty members working with the partner universities to enhance the student experience.
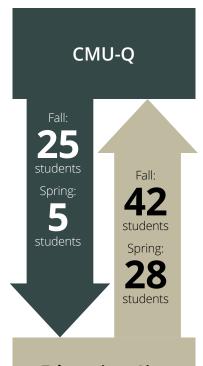
Convocation 2019

His Highness the Amir Sheikh Tamim Bin Hamad Al Thani and **Her Highness Sheikha Moza bint Nasser** attended Qatar Foundation's annual convocation ceremony that honored 786 graduates, including the 78 members of CMU-Q's Class of 2019.

Cross registration

CMU-Q

Fall:
25
students

Spring:
5
students

Fall:
42
students

Spring:
28
students

Education City universities

3
Academic Bridge Program students enrolled at CMU-Q

12
HBKU Computer Engineering students enrolled at CMU-Q

Carnegie Mellon University in Qatar

Her Excellency at Experience CMU-Q

In the presence of **Her Excellency Sheikha Hind bint Hamad Al Thani**, CMU-Q held the inaugural Experience CMU-Q pre-college workshop. The event was also attended by Joint Advisory Board members **Her Excellency Dr. Hessa Sultan Al Jaber**, and **His Excellency Sultan bin Rashid Al Khater**.

Farnam Jahanian on tech disruption

CMU's president, **Farnam Jahanian**, delivered a lecture on the future of higher education in the age of technological disruption. Jahanian was a distinguished speaker for Qatar Computing Research Institute. He is a member of QCRI's Scientific Advisory Committee.

Darb Al Saai

CMU-Q showcased our Alice Middle East software at Darb Al Saai as part of the 2018 Qatar National Day festivities. CMU-Q is part of Qatar Foundation's tent, which celebrated the theme, 'together for our homeland' to promote Qatari culture.

Education City Career Fair

Approximately 1,500 students and recent graduates from across Qatar Foundation visited the 2019 edition of the Education City Career Fair. The annual event is a collaboration between Qatar Foundation and the partner universities, including CMU-Q.

WISE roundtable on language learning policy

Dudley Reynolds led a roundtable discussion on the topic of language learning and multilingualism. The discussion was part of the WISE Happening series, a monthly forum hosted by the World Innovation Summit for Education (WISE).

Health Advisory Board

The Education City partner universities together contribute to a Health Advisory Board that meets each month at CMU-Q to collaborate on promoting and encouraging health and wellness throughout Education City. This year's events included the Education City Health and Wellness Fair and the Breast Cancer Awareness Walk in Oxygen Park.
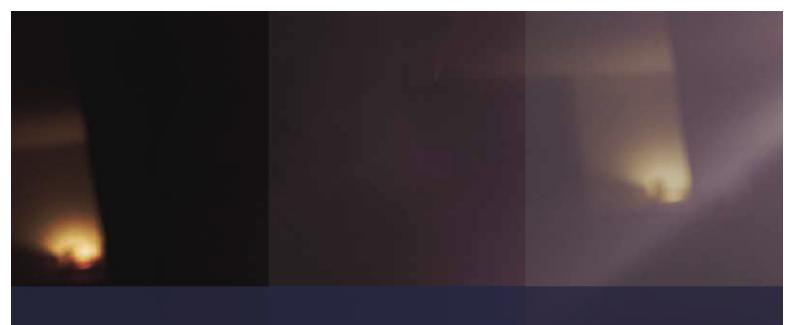
Education City Speaker Series at CMU-Q

Dame Natalie Massenet, a fashion entrepreneur and former journalist, spoke as part of Qatar Foundation's Education City Speaker Series. The talk was held at CMU-Q and drew a large crowd from Education City and the wider Qatar community.

Student Experience

Our students go through a transformation over the four years of their undergraduate education. We encourage them to come together as a community of learners, explore their interests, and learn new skills.

A Strong, Connected Community

Our campus is a unique place to study: the students, alumni, faculty and staff form a close-knit, diverse community that is enthusiastic, supportive and energizing.

New student orientation
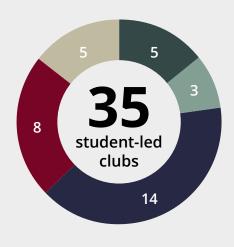
Each year, student leaders organize the freshman class orientation week. This is a time for new students to learn about the resources, expectations and opportunities at CMU-Q, to meet their professors, and to bond with one another. This year's incoming students formed the Class of 2022.

Academic
Cultural
Special interest
Sports
Service

5
5
3
8
14

35 student-led clubs

31 sessions on health, wellness, and work-life balance

80 events organized by students

Carnegie Mellon University in Qatar

Game and trivia nights

Students, faculty and staff connected throughout the year at events like the Brain Bowl trivia challenge and Family Feud, a game night in the style of the classic television show.

Tartans Got Talent

Students and alumni sang, danced and entertained at the annual student-organized talent show.

Qatar Creates

The student-led Photography Club published *Qatar Creates*, the second annual anthology of student artwork, photography and creative writing.

Ma3salama Tartans

As the senior class approached graduation, students from all years came together to bid farewell and offer their congratulations and best wishes.

Qatar National Day Celebration

Students, faculty and staff gather each year to celebrate the culture and heritage of Qatar at an evening hosted by the Qatari Student Association. This year's event included traditional food, dances and handicrafts.

International Day

With students hailing from 38 nations and five continents, International Day is a celebration of diversity for the entire CMU-Q community. This year's event featured international cuisine, cultural activities, and musical and dance performances.

Education City Community

We are proud to be active, enthusiastic members of the Education City community, and our students form an integral part of the multiversity experience.

Tarnival

Organized by student government, the annual Tartan carnival is an evening of food, games, entertainment and fun. Members from the entire Education City community dropped by Tarnival 2018 on the green spine to help us celebrate.

Backyard Battle of the Bands

Students from universities across Education City joined in an evening of fun and music at this year's Backyard Battle of the Bands. CMU-Q hosted this year's event in our building.

Carnegie Mellon University in Qatar

Arab Innovation Academy 2019

Two of the top teams at the Qatar Science and Technology Park Arab Innovation Academy included students from CMU-Q. During the two-week academy, **Jawaria Abbas**, **Roudha Al Emadi** and **Sara Hussein** worked in teams to build a plan for a start-up.

Qatar Foundation sports awards
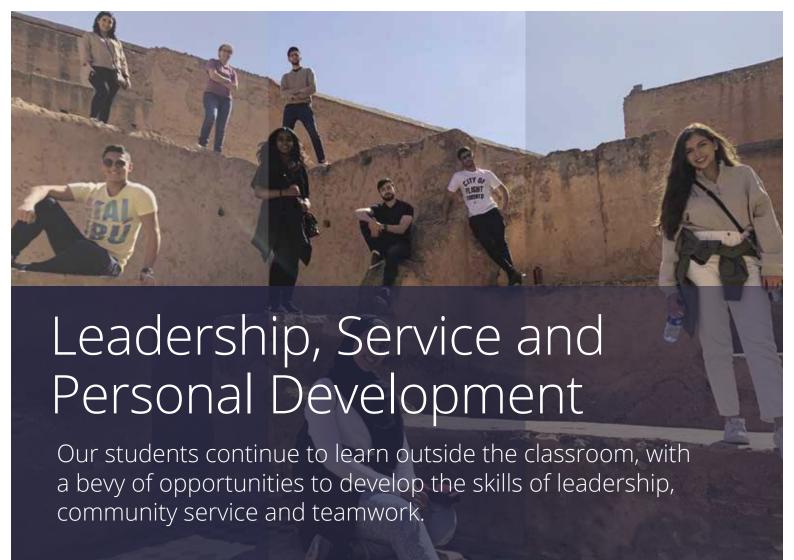
CMU-Q won both the league and cup championships for this year's Education City men's football. **Abdurrehman Syed** was named best goalkeeper and **Mohammed Larri**, **Hussain Feroun**, **Taimur Rizwan** and **Moussa Zekak** were selected as men's football all-stars. **Zelealem Yilma** received the award for best coach.

CMU-Q was also the most recognized university at this year's Qatar Foundation sports banquet. For futsal, **Almayasa Al-Naimi** was named women's all-star, while **Lauren Burakowski** received awards for sportsmanship and best coach. **Ahmed Zahid** and **Abdurrehman Syed** placed first and third, respectively, in badminton. **Taimur Rizwan** placed first in table tennis and second in billiards.

CMU-Q Hackathon

Hackathon 2019 delivered a weekend of high-tech creativity and innovation, with 11 teams participating from CMU-Q, CMU Pittsburgh, Northumbria University in Qatar, Northwestern University in Qatar, Qatar University and Weill Cornell Medicine–Qatar. The top prize went to CMU-Q students **Sideeg Hassan**, **Ammar Karkour**, **Abdullah Shaar** and **Shaden Shaar.** Hackathon 2019 was supported by Siemens Qatar.

Leadership, Service and Personal Development

Our students continue to learn outside the classroom, with a bevy of opportunities to develop the skills of leadership, community service and teamwork.

9
career info sessions

411
career counselling appointments

98
students travelled to 5 continents for service learning or leadership

Career networking

CMU-Q welcomed 37 employers to Careers Platform 2019, and 19 employers to Careers Platform: Technology Edition. Professional Services Day was a separate session, open to students throughout Education City, that featured consulting firms. The events are part of a slate of CMU-Q programming to help students develop the skills of networking, resume writing and interviewing.

Carnegie Mellon University in Qatar

CMBA Business Fashion Show

The student-led Carnegie Mellon Business Association organized a business attire fashion show to educate students about professional dress and presentation.

Leadership travel

CMU-Q organizes travel throughout the year to help students develop leadership skills and an awareness of the needs of different global communities. This year, trips included Greece, Georgia, Morocco, New Zealand, Rwanda, Switzerland and Thailand.

Dublin business and technology

A group of CMU-Q students travelled to Dublin, Ireland, to explore the city's rapidly growing business and technology sector. The students toured several organizations to learn how different industries operate in Europe's fastest growing economy.

Language Bridges

Language Bridges is a student-led organization where CMU-Q students teach English to Qatar Foundation service workers, many of whom work in janitorial, landscaping and facility maintenance.

Internship Showcase

Four students presented their summer work experiences to an audience of students, faculty members and potential employers at Internship Showcase 2018. The showcase provides both inspiration for students to pursue internships, and a venue to network with potential employers.

Senior Leadership Awards 2019

Each year, CMU-Q acknowledges graduating seniors who have excelled in the areas of leadership, service and community building.

- **Ommar Laith Aburaddad**
- **Amer Javed Ahmad**
- **Maha Erhama Al-Kaabi**, *with distinction*
- **Dina Nayel Al-Tarawneh**
- **Najlaa Al-Thani**
- **Cyrine Darwish**
- **Reem Abdelati Elasad**, *with distinction*
- **Eman Fatima**, *with distinction*
- **Muhammad Ibrahim Ghous**, *with distinction*
- **Faisal Rizwan Mir**
- **Hasan Naveed**
- **Pancé Nwaisar**
- **Haris Saad Syed**
- **Moussa Zekak**

Research

At its heart, research at Carnegie Mellon looks for practical answers to complex, real world problems. In this spirit, we at the Qatar campus encourage our faculty members and students to explore their fields and engage in projects that will have an impact.

The Year in Research

Research is at the core of Carnegie Mellon and touches nearly every corner of the university. Faculty members at the Qatar campus, as well as CMU-Q alumni in Qatar and around the world, are actively engaged in projects that have local, regional and international significance.

Faculty research

15
ongoing NPRP research projects

18
book chapters

40
publications

51
conference presentations

Turkish Natural Language Processing

Kemal Oflazer, along with co-editor **Murat Saraçlar** of Boğaziçi University in Istanbul, spent more than four years bringing together 25 years of work in the area of Turkish Natural Language Processing. The book was published in 2018 in both hard-copy and online versions, and more than 2,000 copies of various chapters have been downloaded.

Digital, 3D model to help in prenatal care

CMU-Q's **Hasan Demirkoparan** and **Heiko Topol** have created a new mathematical model to predict how human tissue responds to the physical stresses of pregnancy. The digital 3D model could lead to a new tool for doctors to measure the risk of miscarriage or pre-term delivery.

Carnegie Mellon University in Qatar
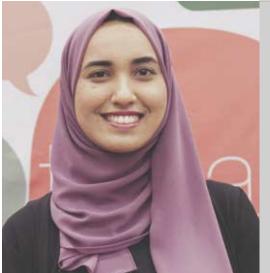
New avenue of investigation for cancer therapy

CMU-Q researchers have discovered a new area of inquiry that could lead to more effective breast cancer treatment. **Ihab Younis** and **Ettaib El Marabti**, a 2017 graduate, have investigated how the cellular mechanism splicing is different in cancer cells. Targeting these cells could be one way to kill cancer cells while leaving healthy tissue intact.

ISSCR Abstract Merit Award

CMU-Q alumna **Bushra Memon**, who is now pursuing her PhD at the College of Health and Life Sciences at Hamad Bin Khalifa University, was recognized by the International Society for Stem Cell Research for her outstanding research on diabetes during the 2019 ISSCR Conference in Los Angeles.

Voice technology at the World Economic Forum

CMU-Q alumnus **Mahmoud Al Ismail**, now a research associate at the School of Computer Science, was part of a CMU delegation to the World Economic Forum's Annual Meeting of New Champions, in Tianjin, China. Al Ismail is part of a team at the Language Technologies Institute that is researching voice technology.

New projects

- **Incoming subaward with Qatar University**

  The Garbled Computer: Towards computing without seeing

  Co-LPI: **Ryan Riley**, CMU-Q
  Co-LPI: **Qutaibah Malluhi**, Qatar University

- **Incoming subaward with Hamad Bin Khalifa University**

  Circumventing of microbial bioinvasion controls by ballast water

  PI: **Annette Vincent**
  LPI: **Basem Shomar**, Qatar Environment and Energy Research Institute (QEERI), HBKU

- **New seed grant in arts and sciences**

  Pilot corpus of undergraduate information systems writing in Qatar

  Maria Pia Gomez Laich

- **New seed grant in biological sciences**
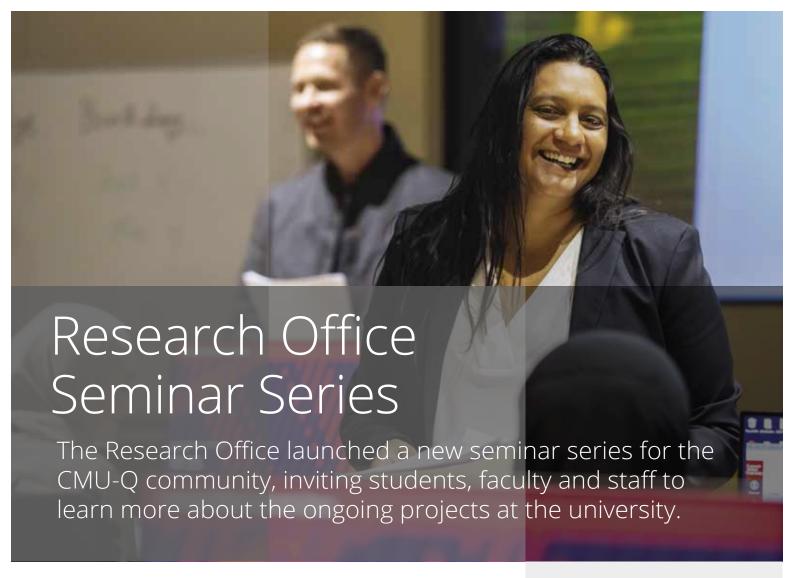
  Molecular mechanism of Jun Kinase (JNK) inhibition by GSTP1: Phase I - reagent development

  Gordon Rule

Alumni diabetes research at CUDOS 2018

CMU-Q alumni showcased their work at the conference series on understanding molecular mechanisms in cardiovascular biology, diabetes, obesity and stroke, organized by Sidra Medicine. **Alya Al-Kurbi, Asma Al-Naama, Omair Al Nuaimi, Reem Hasnah** and **Mohammed Janahi** each presented work in the area of Type 1 diabetes.

Research Office Seminar Series

The Research Office launched a new seminar series for the CMU-Q community, inviting students, faculty and staff to learn more about the ongoing projects at the university.

SLATE-Q: Making writing expectations explicit through interdisciplinary collaborations

University students are expected to write analytically and argumentatively, but many lack the awareness or language control, and assignments often do not make expectations explicit. A collaboration between applied linguists and information systems faculty members, this study has developed pedagogical interventions to support learners as they write effective, analytical texts.
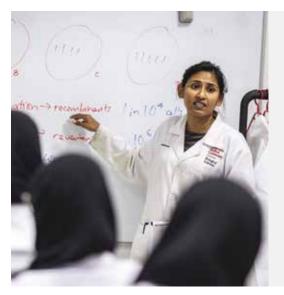
The SLATE-Q team is led by **Silvia Pessoa** and includes CMU-Q principal investigators **Selma Limam Mansar, Maria Pia Gomez Laich, Divakaran Liginlal, Thomas Mitchell,** and **Susan Hagan**. The team also includes **Ahmar Mahboob**, University of Sydney, and **Ryan Miller**, Kent State University.

Modeling collagenous soft tissue

Mathematical models that describe how soft biological tissue responds to mechanical stress are an essential part of basic biomechanics. This project creates continuum level mathematical formulations that describe the relation between swelling, deformation, stress, and key metabolic factors.

Heiko Topol is a postdoctoral research associate with a background in mechanical engineering. The co-lead principal investigators for this project are CMU-Q's **Hasan Demirkoparan** and **Thomas Pence** from Michigan State University.

Carnegie Mellon University in Qatar

Bacteriophages in wastewater: isolation and use

Water security and sustainability in Qatar is a critical issue, since the only source of drinking water is the desalinated seawater from the Arabian Gulf. Water quality and safety is a key component of water security. This project aims to isolate and use bacteriophages as biomonitoring tools in wastewater treatment plants to validate the efficacy of the treatment process.

Annette Vincent is the program director of biological sciences and the lead principal investigator for this project. The principal investigators include CMU-Q's **Valentin Ilyin** and **Basem Shomar** from HBKU's Qatar Environment and Energy Research Institute.

A comparison of the impact of the Basel Standards upon Islamic and conventional bank risks in the Gulf State Region

Subsequent to the 2008 global crisis, Basel III has proposed some major changes to banking regulations. This project is a comparative study of the Islamic and conventional banking sector risks using market data generated from a sample of publicly listed Islamic and conventional banks in the Gulf Cooperation Council (GCC) region.

John O'Brien and **Fuad Farooqi** are part of the business administration faculty at CMU-Q, teaching courses in finance and accounting. In addition to Islamic finance, their research interests lie in the areas of fintech and the blockchain.

Formalization of automated trading systems in a concurrent linear framework

By formally representing the core of a financial exchange as a set of logical formulas, it is possible to both run the exchange and prove properties about it. This project uses a concurrent and linear framework to model a financial order matching system where buy and sell orders are matched according to the price-time priority.

Dragiša Žunić was a postdoctoral research associate who worked with co-lead principal investigators CMU-Q's **Giselle Reis** and CMU's **Iliano Cervesato** on this project.
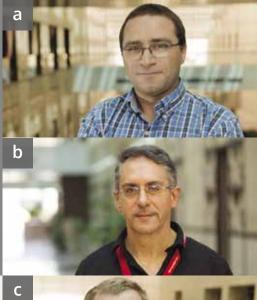
Role of the PDZ and LIM containing protein Zasp in integrin-mediated cell adhesion

In multicellular organisms, cells attach to each other and the matrix around them using specific adhesion proteins called integrins to form functional tissues and organs. Cells can regulate their adhesion to move, migrate and invade. This study focuses on how cells regulate integrin function, which could help better understanding how normal cells function and how disease onset takes place.

Mohamed Bouaouina is an assistant teaching professor of biological science at CMU-Q and lead principal investigator on the project..

Ongoing Externally Funded Research Projects

National Priorities Research Program, Qatar National Research Fund

a. Role of the PDZ and LIM containing protein Zasp in integrin-mediated cell adhesion.
    Lead PI: **Mohamed Bouaouina**

b. Teams of aquatic/aerial robots for marine environmental monitoring (TARMEM)
    Lead PI: **Gianni Di Caro**
    Subaward partners:
    PI: **Enrico Simetti**, University of Genova
    PI: **Filippo Arrichiello**, University of Cassino and Southern Lazio

c. Personalised Drug Selection for Cancer Treatment in Qatar
    PI: **Valentin Ilyin**
    Subcontract with Hamad Medical Corporation (HMC):
    LPI: **Peter Coveney**, University College London
    Co-LPI: **Mohamad Ussama Al Homsi**, HMC

d. Arab author profiling for cyber-security
    Lead PI: **Anis Charfi**
    Subaward partners:
    PI: **Wajdi Zaghouani**, Hamad Bin Khalifa University
    PI: **Abdelmajid Ben Hamadou**, Centre de Recherche en Numérique de Sfax, Tunisia
    PI: **Paolo Ross**, Polytechnic University of Valencia, Spain

e. Scalable analytics engine for big graphs on the cloud
    Lead PI: **Mohammad Hammoud**
    Subaward partners:
    PI: **Tamar Elsayed**, Qatar University
    PI: **Rami Melhem**, University of Pittsburgh
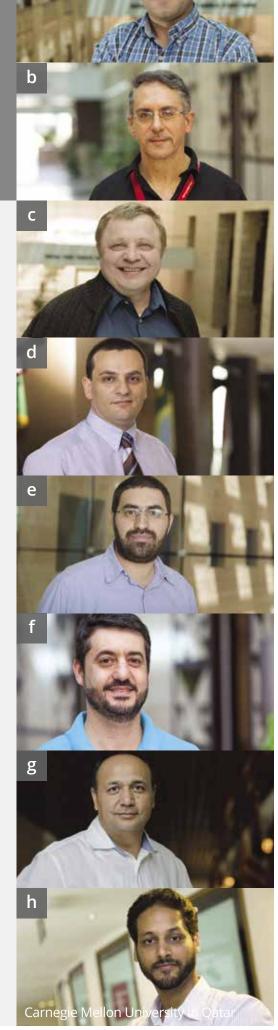
f. Molecular profiling of breast cancer transcriptome and splicing aberrations
    Lead PI: **Ihab Younis**
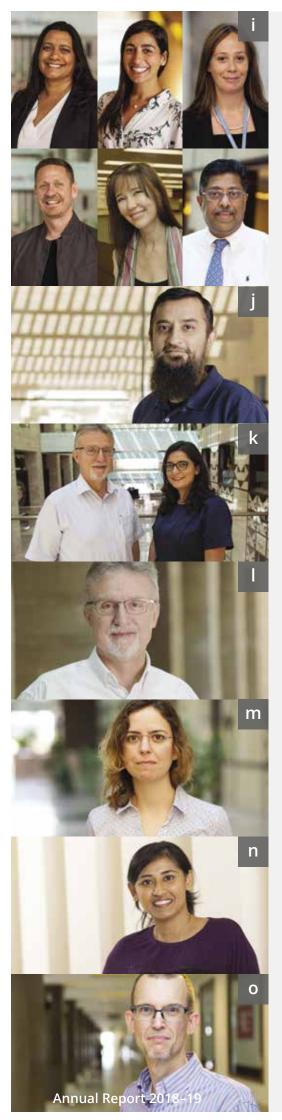
g. New mathematical models for the large strain swelling response of biological tissues: Applications to edema, inflammation, and pregnancy
    Co-Lead PI: **Hasan Demirkoparan**
    Lead PI: **Thomas Pence**, Michigan State University, UA

h. Towards mobile opportunistic cloud computing: Enabling generic computation offloading to extreme heterogeneous entities
Lead PI: **Khaled Harras**

QHCN: Towards reliable and efficient mHealth system with multimodal processing and communications for effective remote patient diagnosis
PI: **Khaled Harras**
Subcontract with Qatar University (QU):
Lead PI: **Amr Mohamed**, QU

i. SLATE-Q: Scaffolding literacy in academic and tertiary environments: The case of communication in information systems
Lead PI: **Silvia Pessoa**
PI: **Maria Pia Gomez Laich**
PI: **Selma Limam Mansar**
PI: **Thomas Mitchell**
PI: **Susan Hagan**
PI: **Divakaran Liginlal**
Subaward partners:
PI: **Ryan Miller**, Kent State University
PI: **Ahmar Mahboob**, University of Sydney

j. Bringing computer science to secondary schools – Curriculum design and implementation
Lead PI: **Saquib Razak**

k. MADAR: Multi-Arabic dialect applications and resources
Co-Lead PI: **Kemal Oflazer**
PI: **Houda Bouamor**
Subaward partners:
Lead PI: **Nizar Habash**, New York University Abu Dhabi
PI: **Owen Rambow**: Columbia University in the City of New York

l. Testing English reading comprehension through deep text analysis and question generation
Lead PI: **Kemal Oflazer**
PI: **Teruko Mitamura**, Carnegie Mellon University

m. Automated verification of properties of concurrent, distributed and parallel specifications with applications to computer security
Co-Lead PI: **Giselle Reis**
Lead PI: **Iliano Cervesato**, Carnegie Mellon University
Subaward partner:
PI: **Carsten Schürmann**, University of Copenhagen

n. Using bacteriophages as biomonitoring tools for water quality measurements
Lead PI: **Annette Vincent**
PI: **Valentin Ilyin**
Subaward partner:
PI: **Basem Shomar**, Qatar Environment and Energy Research Institute (QEERI), HBKU
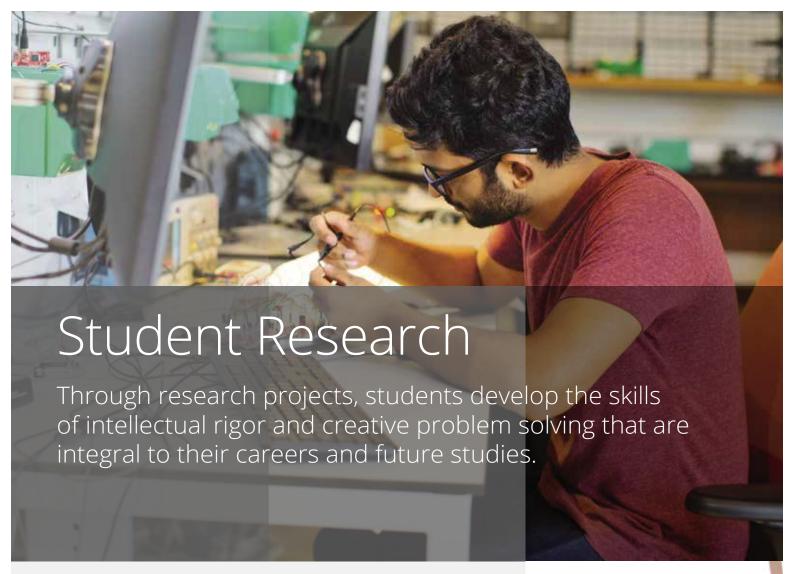
Qatar Foundation World Innovation Summit for Education (WISE)

o. Language policy in globalized contexts
LPI: **Dudley Reynolds**

Student Research

Through research projects, students develop the skills of intellectual rigor and creative problem solving that are integral to their careers and future studies.

QSIURP 2018 awards

Through Qatar Student-Initiated Undergraduate Research Program projects, students develop research skills by working on projects that are driven by their interests. The projects are research, scholarly, or artistic activities that lead to the production of new knowledge, increased problem-solving capabilities, original, critical, or historical theory and interpretation, or the production of art.

- **Sayeda Amir**: Role of Kindlin-2 in breast cancer cell adhesion and migration
  Faculty advisor: **Mohamed Bouaouina**

- **Mohammed Yusuf Ansari** and **Maimoon Siddiqui**: Developing a group study mobile application by researching human computer interaction
  Faculty advisor: **Giselle Reis**

- **Aya Nour**: Effect of p38α-dependent AUF1 phosphorylation on transcription factor ATF3 stabilization
  Faculty advisor: **Ihab Younis**

- **Julian Sam** and **Sameer Ahmad**: Code translation for implementing a functional assertion engine in SML
  Faculty advisor: **Giselle Reis**

Carnegie Mellon University in Qatar

International conferences

- IEEE Local Computer Networks Conference, **Shaden Shaar**, Chicago, Illinois

- CIKM 2018 International Conference on Information and Knowledge Management, **Omar Khattab**, Turin, Italy

- iGEM 2018 Giant Jamboree competition, **Kaan Aksoy, Dina Altarawneh, Joana Khatib, Maimoon Siddiqui**, Boston, USA

- 17th IEEE International Conference on Machine Learning and Applications, **Shaden Shaar**, Orlando, USA

Senior Honors theses

- **Al-Dana Al-Mohannadi**: Toward enhancing technology use in Qatar's public schools
  Faculty advisor: **Susan Hagan**

- **Khalid Al-Naemi**: Integrin-mediated signaling in breast cancer cells
  Faculty advisor: **Mohamed Bouaouina**

- **Najlaa Al-Thani**: Metagenomic analysis of DNA and RNA profiles in ballast water
  Faculty advisor: **Annette Vincent**

- **Sayeda Amir**: Role of Kindlin-2 in breast cancer cell adhesion and migration
  Faculty advisor: **Mohamed Bouaouina**

- **Aisha Fakhroo**: PTEN gene encodes a ncRNA that acts as a potent tumor suppressor in breast cancer
  Faculty advisor: **Ihab Younis**

- **Kawthar Jafarian**: Molecular tools for microbial viability assessment in environmental samples: Case study of ballast water
  Faculty advisor: **Annette Vincent**

- **Youssef Kanbour**: Targeted demethylation of CpG islands
  Faculty advisor: **Ihab Younis**

- **Omar Khattab**: A distributed, graph-based framework for information retrieval
  Faculty advisor: **Mohammad Hammoud**

- **Aya Nour**: The effect of p38α kinase on binding of AUF1 protein to ATF3 transcripts in breast cancer
  Faculty advisor: **Ihab Younis**

Meeting of the Minds

The annual Meeting of the Minds symposium featured research projects from all five programs of study, including 26 from undergraduate students. Expert judges represented organizations from across Qatar.

CMU-Q awards

Best project: First place

- **Omar Khattab**, IRg: A distributed graph-based framework for information retrieval
  Advisor: **Mohammad Hammoud**

  Khattab created a novel framework that makes it easier and more efficient for information retrieval experts to develop and deploy scalable search engines. Large-scale information retrieval is central to many applications like web and e-commerce searches.

Best project: Second place

- **Beom Jin Jayden Park** and **Hawra Al-Saygh**, Effect of aspartame on kinetics of calf intestinal alkaline phosphatase
  Advisor: **Annette Vincent**

Best project: Third place

- **Youssef Kanbour**, Re-expression of BCRA1 using targeted DNA demethylation in breast cancer cells
  Advisor: **Ihab Younis**

Best poster design

- **Al-Dana Al-Mohannadi**, Educating girls in Qatar: Toward enhancing technology use in public schools
  Advisor: **Susan Hagan**

Carnegie Mellon University in Qatar

QNRF undergraduate awards

Qatar National Research Fund and CMU-Q have a long history of partnership and collaboration, and the fruits of this partnership are on display at Meeting of the Minds. Many of the student projects are off-shoots of larger, faculty-led projects that have been generously funded by QNRF.

31
posters

21
external judges

This year's QNRF awards were presented by senior program manager for ICT at QNRF, **Dr. Munir Tag**.

- **Albandari Al-Khater**, Modulating PARP1 splicing in breast cancer as potential therapeutic approach
  Advisor: **Ihab Younis**

- **Omar Khattab**, IRg: A distributed graph-based framework for information retrieval
  Advisor: **Mohammad Hammoud**

- **Anis Charfi, Syed Mehdi** and **Esraa Mohamad**, ARAP – Author profiling and its application for market segmentation

Planning and Statistics Authority awards
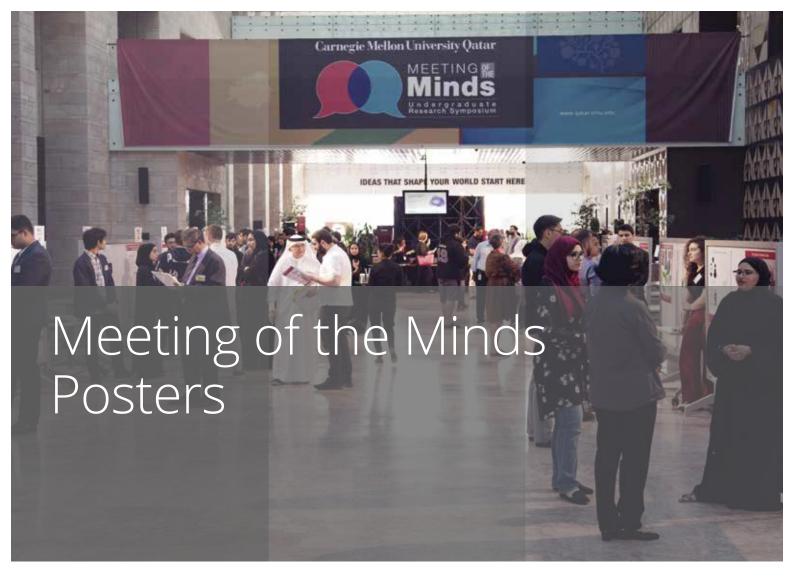
For many years, the Planning and Statistics Authority has supported undergraduate research at CMU-Q with special awards for projects relevant to Qatar.

The awards from the Planning and Statistics Authority were announced by **Dr. Barak Yehya**, a longtime friend and supporter of CMU-Q.

- **Aisha Fakhroo, Boshra Al-Sulaiti** and **Reem Elasad**, PTEN gene encodes a ncRNA that acts as a potent tumor suppressor in breast cancer
  Advisor: **Ihab Younis**

- **Kawthar Al-Sadat**, Molecular tools for microbial viability assessment in environmental samples: Case study of ballast water
  Advisors: **Basem Shomar**, Qatar Environment and Energy Research Institute, and **Annette Vincent**

- **Al-Dana Al-Mohannadi**, Educating girls in Qatar: Toward enhancing technology use in public schools
  Advisor: **Susan Hagan**

- **Faiq Defiandry**, What does the eye say?
  Advisor: **Jennifer Bruder**

- **Anis Charfi, Esraa Mohamad** and **Syed Mehdi**, Deception detection in Arabic text

Meeting of the Minds Posters

Biological Sciences

Effects of pH and temperature on the activity of alkaline phosphatase from sheep's brain, **Sara AlDarwish**, **Maha AlTamimi**

Effect of high temperatures on alkaline phosphatase isolated from *Escherichia coli*, **Khulood Al-Haroon**, **Noora Al-Shukri**

Kinetic study on effects of the inhibitor L-Phenylalanine on calf intestinal alkaline phosphatases, **Haya Alkaabi**, **Naila AlSowaidi**

Comparing thermostability and enzyme kinetics of bacterial alkaline phosphatase and calf-intestinal alkaline phosphatase at high temperatures, **Reem Al-Karbi**, **Sondoss Hassan**

Modulating PARP1 splicing in breast cancer as potential therapeutic approach, **Albandari Al-Khater**

Integrin-mediated signaling in breast cancer cells, **Khalid Al-Naemi**

Molecular tools for microbial viability assessment in environmental samples: Case study of ballast water, **Kawthar Al-Sadat**

Metagenomic analysis of DNA and RNA profiles in ballast water, **Najlaa Al-Thani**

Role of kindlin-2 in breast cancer cell adhesion and migration, **Sayeda Sakina Amir**

Role of P21 in the regulation of apoptosis in breast cancer tumor formation, **Sayeda Sakina Amir**

PTEN gene encodes a ncRNA that acts as a potent tumor suppressor in breast cancer, **Aisha Fakhroo**, **Boshra Al-Sulaiti**, **Reem Elasad**

Biological Sciences (continued)

Expression and purification of dihydrofolate reductase,
Dona Ferdinando, **Muhammad Nahin Khan**

Effect of EDTA on enzymatic activity of calf intestinal alkaline phosphatase,
Muhammad Nahin Khan, **Dona Ferdinando**

The role of p38α kinase in regulating AUF1 binding to ATF3 transcripts in breast cancer,
Aya Nour

Effect of aspartame on kinetics of calf intestinal alkaline phosphatase,
Beom Jin Jayden Park, **Hawra Al-Saygh**

Assessing the catalytic activities of purified placental alkaline phosphatase and alkaline phosphatase from MDA.MB.231 cancer cell-line, **Reema Subeh**, **Zahra Al-Raisi**

Business Administration

Near-optimal dynamic pricing strategies for selling limited inventory to rational customers,
Shireen Ahmed, **Fahad Bahzad**, **Abraham Farooqui**

Supporting students development of self-authorship and reflective judgement, **Zeina Darwiche**

Two-sided matching with random utility and outside options,
Anthony Lo, **Fariza Shiyap**, **Xinyu Ma**

Design of service points in queuing networks, **Madhvi Menon**, **Menatalla Mahmoud**

Computational Biology

Re-expression of BRCA1 using targeted DNA demethylation in breast cancer cells,
Youssef Kanbour

Computer Science

Code translation for implementing a functional assertion engine in SML,
Sameer Ahmad, **Julian Sam**

IRg: A distributed graph-based framework for information retrieval, **Omar Khattab**

Information Systems

Educating girls in Qatar: Toward enhancing technology use in public schools,
Al-Dana Al-Mohannadi

What does the eye say?, **Faiq Defiandry**

Effect of language direction on spatial cognition, **Masooma Zehra**, **Danish Memon**

Postgraduate posters

An oracle hierarchy for small one-way finite automata,
Malek Anabtawi, **Sabit Hassan**, **Christos Kapoutsis**, **Mohammad Zakzok**

MADAR Twitter user dialect identification,
Houda Bouamor, **Nizar Habash**, **Sabit Hassan**, **Kemal Oflazer**
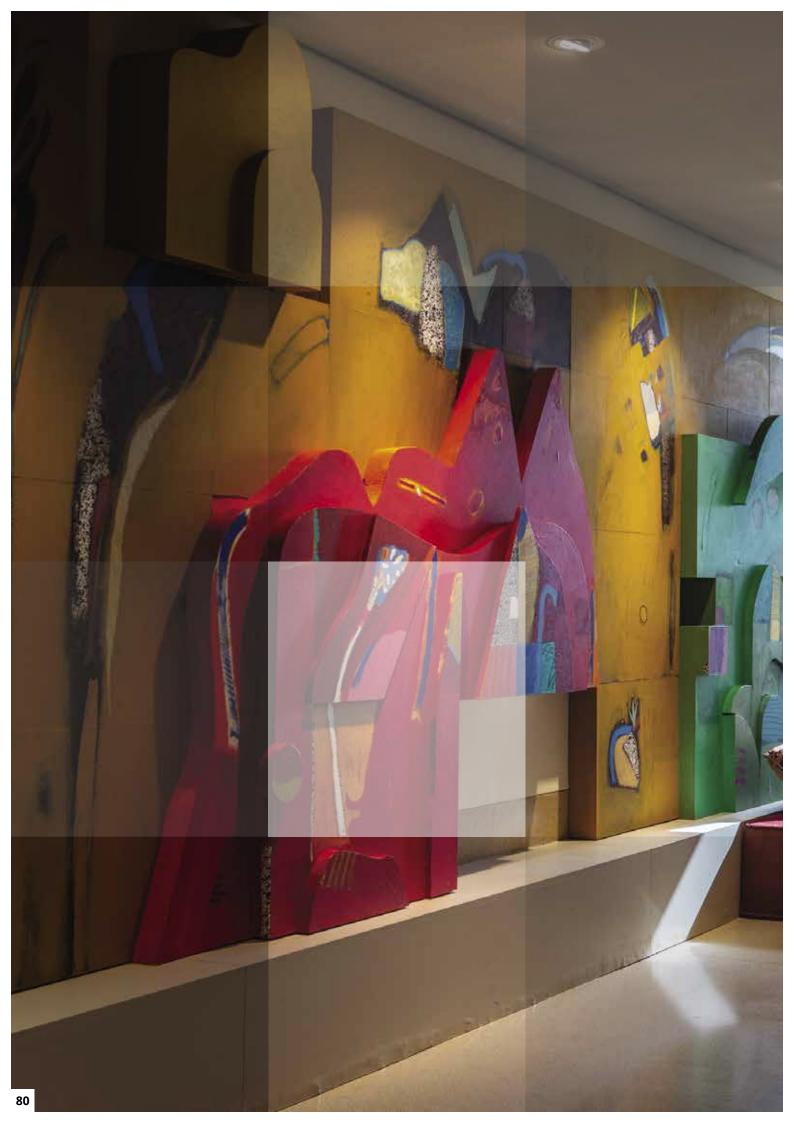
ARAP – Author profiling and its application for market segmentation,
Anis Charfi, **Syed Mehdi**, **Esraa Mohamad**
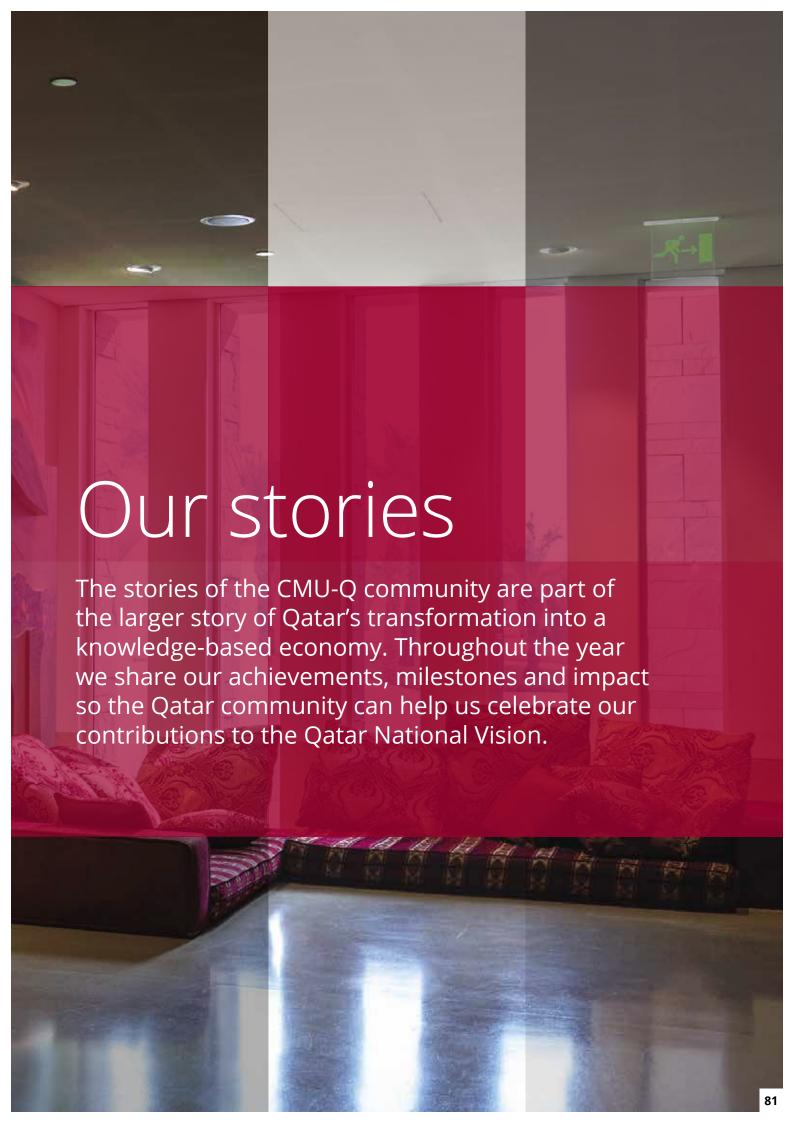
Deception detection in Arabic text, **Anis Charfi**, **Esraa Mohamad**, **Syed Mehdi**

Supporting students writing case analysis in information systems and organizational behavior,
Silvia Pessoa, **Maria Pia Gomez Laich**, **Thomas Mitchell**, **Michael Maune**

Our stories

The stories of the CMU-Q community are part of the larger story of Qatar's transformation into a knowledge-based economy. Throughout the year we share our achievements, milestones and impact so the Qatar community can help us celebrate our contributions to the Qatar National Vision.
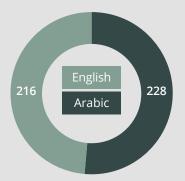
Public Relations
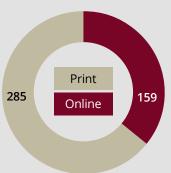
Through marketing and public relations, we share our achievements with the community, reach out to bright and ambitious high school students, and raise awareness of our talented graduates to potential employers.

CMU-Q in the news

Local, regional and international media published 444 articles about our events and accomplishments over the academic year.

216 English
228 Arabic

coverage by language

285 Print
159 Online

type of coverage

Top news stories

Qatar high school students learn about careers, college life at CMU-Q summer program

Carnegie Mellon and Jassim and Hamad Bin Jassim Charitable Foundation promote computer science education

Her Excellency Sheikha Hind attends inaugural Experience CMU-Q event

CMU-Q student wins gold for football-related invention

Carnegie Mellon Qatar discovers new avenue of investigation for breast cancer therapy

Carnegie Mellon team wins Quick Startup 2019 with idea to enhance driver safety

Global LNG market's changing dynamics require Qatar to adjust its strategy, says Amiri Diwan Economic Advisor

Carnegie Mellon University in Qatar celebrates 78 new graduates

A decade of success: CMU-Q celebrates 10-year anniversary of first graduating class

Carnegie Mellon students meet president of Rwanda to discuss the power of education

Digital channels

We reach out to our audiences through several digital channels by producing stories, event posters, photo galleries, and video, and then promoting that content through targeted use of social media.

Focus groups

Since the digital habits of pre-college students change so rapidly, we conduct focus groups to better understand how they use digital media. In 2018, these focus groups revealed that video, on nearly every digital channel, is the preferred medium.

105
news stories

156
events supported by MPR

257,000
unique website visitors

128
Instagram posts

1,215
Instagram stories

480
tweets from @CarnegieMellonQ and @DeanTrick

Digital marketing

Through strategic use of sponsored social media, as well as online display and search engine ads, we increase awareness of CMU-Q with a wide, international audience.

4,781
admission leads

25%
increase in clicks and swipes

133%
increase in ad impressions

Video campaigns

In 2018-19, we more than doubled our in-house video production with several campaigns to reach prospective students. These campaigns included video interviews with faculty members, and program-specific videos to reach students interested in the Business Administration Program.

Overall views on the CMU-Q YouTube channel grew by more than 300% in 2018-19.

The Year in the News

July '18	CMU-Q students place second in BrainHub Neurohackathon
	Qatar high school students learn about careers, college life at CMU-Q summer program
Aug '18	CMU-Q invites new students to make their mark
Sep '18	Carnegie Mellon welcomes Class of 2022
	Alumni startup named ICT Exporter of the Year
	CMU-Q students share experiences and network at Internship Showcase
	Mindcraft workshops introduce high school students to computer science
	CMU-Q announces Class of 2019 scholars
	CMU-Q graduates showcase diabetes-related research at CUDOS 2018
	CMU delegation at "Summer Davos" discusses role of education, creativity on innovation
Oct '18	Carnegie Mellon Qatar honors 106 students for academic excellence
	Health and Wellness Fair brings together Education City community
	Carnegie Mellon Qatar and Fifty One East sign partnership agreement
	CMU-Q students develop CRISPR test for carriers of sickle cell anemia
	Qatar Central Bank Governor outlines multifaceted approach to financial technology
	CMU-Q's Chadi Aoun: "We have the means to stop global warming"
	CMU-Q signs Memorandum of Understanding with QLife Pharma
	Her Excellency Sheikha Hind attends inaugural Experience CMU-Q event
	Qatar Living features CMU-Q alumna Farha Khan
	Global LNG market's changing dynamics require Qatar to adjust its strategy, says Amiri Diwan Economic Advisor
	CMU-Q's Ben Reilly shares research with Qatar Foundation community
	INJAZ Qatar honours its education partners
	Carnegie Mellon Qatar student team wins in Oman programming competition
	26 nations represented in CMU-Q incoming class
	A decade of innovation: Information Systems at Carnegie Mellon Qatar
Nov '18	Jahanian installed as Carnegie Mellon's 10th president
	Carnegie Mellon Qatar discovers new avenue of investigation for breast cancer therapy
	QSTP paves way for young entrepreneurs
	CMU-Q hosts top technology employers to share expertise

Students learn college life, careers at CMU-Q programme

The secondary school students from various schools in Qatar during the annual Summer College Preview Program at Carnegie Mellon University in Qatar.

Students feted for academic excellence

Sheikha Hind attends inaugural 'Experience CMU-Q' event

قطر مهتمة بالاستثمار في قطاع الغاز الصخري الأمريكي والأسترالي

Carnegie Mellon Qatar discovers new avenue of investigation for breast cancer therapy

Carnegie Mellon University in Qatar

Nov '18

U.S. Embassy celebrates local talent at 3rd Young Writers Open Mic Night

CMU-Q signs Memorandum of Understanding with Abu Issa Holding

Artificial Intelligence in focus at CMU-Q lecture

New CMU-Q Dean's Panel Series delves into challenges, opportunities in Qatar

Carnegie Mellon grads reflect on rich learning opportunities within Qatar

Five years later: Carnegie Mellon business grads discuss building careers in Qatar

CMU-Q builds mentorship network to encourage students interested in consulting

Lecture series explores the birth of calculus

Dec '18

CMU-Q alum places third in University of Pittsburgh IBM Bluehack

Research builds collaboration between disciplines to improve student writing

CMU-Q students celebrate social responsibility, power of education

A decade of success: CMU-Q celebrates 10-year anniversary of first graduating class

CMU-Q alums and seniors win MetLife Innovation Award at INJAZ AlArab

Carnegie Mellon Qatar celebrates Qatar National Day at Darb Al Saai

Dudley Reynolds leads WISE roundtable on language policy in education

CMU-Q teams place 2nd and 3rd at QU business competition

CRA, QU and CMU-Q collaborate to issue guidelines on IPv6 transition

Jan '19

CMU-Q lends expertise to Qatar-wide transition to new internet protocol

CMU-Q students explore Dublin business hub

CMU-Q and GBI agreement to promote scientific research and exchange expertise

Carnegie Mellon and Jassim and Hamad Bin Jassim Charitable Foundation promote computer science education

Dean welcomes prospective undergraduate students to 'Experience CMU-Q'

CMU-Q hosts dinner for Class of 2023 students

CMU-Q celebrates anniversary of first graduating class of 2008

CMU-Q celebrates 10-year anniversary of first graduating class.

The Year in the News

Feb '19

The Peninsula: CMU-Q to play bigger role in Qatar's economic diversification

Students, alumni connect at Dinner With Twelve Tartans

Ethics should be integral to artificial intelligence development, says Carnegie Mellon expert

Qatar Academy wins 15th edition of Botball at CMU-Q

CMU-Q student wins gold for football-related invention

UN's Neil Walsh discusses cybercrime in CMU-Q Dean's Lecture Series

Cognition expert explores the nuances of human-robot interactions

Qatar Shell chairman discusses human and sustainable development at CMU-Q Dean's Lecture Series

CMU-Q students explore internships, jobs at Education City Career Fair 2019

CMU-Q, Barzan Holdings sign MoU to promote scientific research

Alums share keys to job-hunting success

QNL's Christopher Alario investigates mysterious Qatar on historical maps

CMU-Q students on top teams at Arab Innovation Academy 2019

Mar '19

Carnegie Mellon Qatar honors 105 students for academic excellence

CMU-Q hosts Qatar hub for Google Hash Code competition

Student consulting club tackles Coca-Cola business case

Alumnae recognized by Amir for academic excellence

Knowledge transfer is key to Qatar's development says Siemens CEO

CMU president to speak on effect of tech disruption on higher education

Al Arqam Academy wins first place at Carnegie Mellon programming competition

CMU-Q, Regency Group Holding sign MoU to promote collaboration and joint research

American School of Doha wins CMU-Q Pi Day Math Contest

CMU-Q prepares you for lifelong learning, says alumni panel

Dame Natalie Massenet shares insights at Education City Speaker Series

CMU-Q places second at Oman programming bootcamp

CMU-Q showcases Mindcraft Junior, Alice Middle East at National Science Research Week

Football-related invention nets gold for CMU-Q student

CMU president set to shine light on impact of technological disruption on higher education

Al Arqam Academy bags 1st prize in CMU-Q programming contest

Apr '19

Carnegie Mellon team wins Quick Startup 2019 with idea to enhance driver safety

CMU-Q students sweep men's division of the Qatar University Math Championship

Students explore sustainability and resilience in Greece

Employers share job search insights with CMU-Q students

CMU-Q's Dudley Reynolds kicks off inaugural English Language Centre symposium

Carnegie Mellon alumni welcome the Class of 2019

Time management tool for students wins top prize at Carnegie Mellon Hackathon

Carnegie Mellon University in Qatar welcomes Class of 2023

Carnegie Mellon was a transformative experience for grad speaker Amer Ahmad

CMU-Q team wins Qatar Stock Exchange competition

CMU-Q faculty members speak on learning and politics at Texas A&M Qatar conference

CMU-Q football team wins Qatar Foundation championship cup

CMU-Q opened doors to a career in research, says computer science grad Omar Khattab

May '19

CMU-Q's bio sci program provided meaning, inspiration for 2019 grad Aisha Fakhroo

Search engine research wins best project at Carnegie Mellon symposium

Exploration, competition and community at CMU-Q shaped business administration grad Mohamed Hamdi

Carnegie Mellon University in Qatar celebrates 78 new graduates

Amir, Sheikha Moza attend Qatar Foundation's convocation ceremony

CMU-Q recognizes 43 graduating seniors for academic excellence and leadership

Serkan Akgüç receives Meritorious Teaching Award 2019

Gulf Times hosts innovative and enterprising CMU-Q graduates

Computer science grad receives Carnegie Mellon School of Computer Science award for research

CMU-Q's Dan Phelps contributes to nursing informatics initiative at Hamad

Smart about Smart Cities

Jun '19

CMU-Q researchers explore the mathematics of personalized medicine

CMU-Q grad named regional finalist for UN Young Champions of the Earth

Dudley Reynolds delves into language learning for WISE 2019
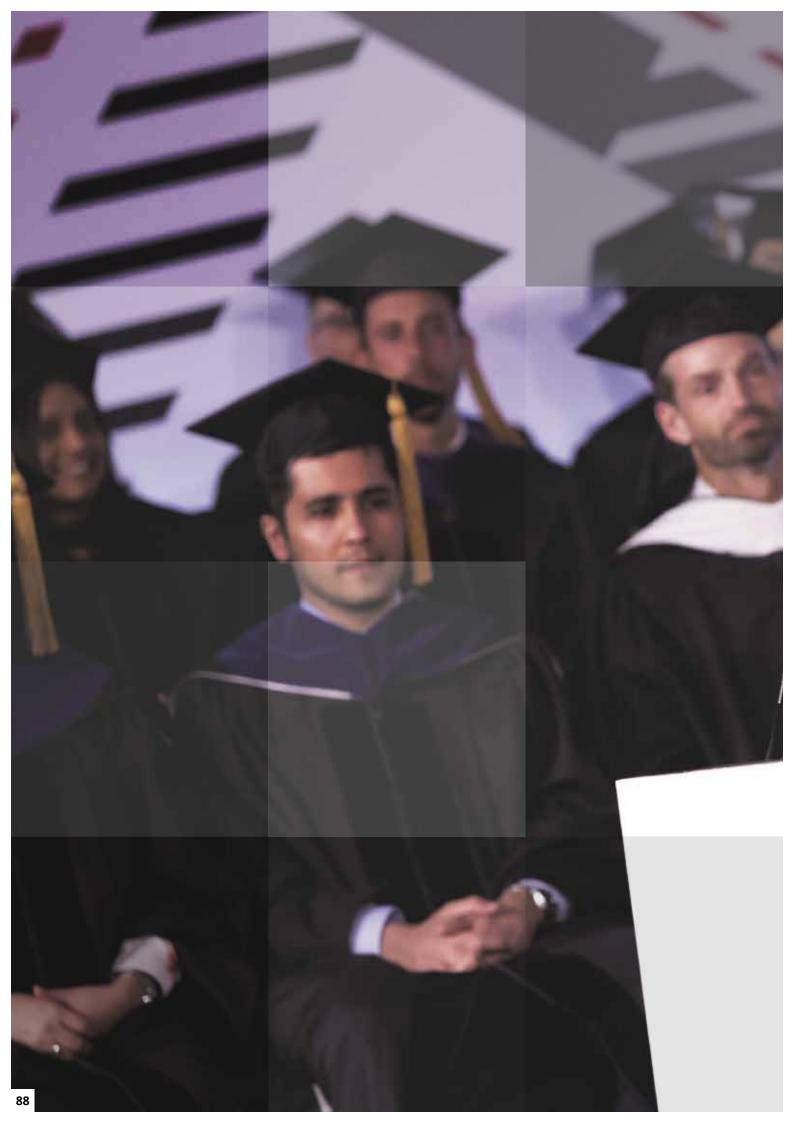
Carnegie Mellon students meet president of Rwanda to discuss the power of education

Carnegie Mellon Team Wins Quick Startup 2019 With Idea to Enhance Driver Safety

كارنيجي ميلون تخرج 78 طالبا جديدا في 5 تخصصات مختلفة

CMU students meet Rwanda President, discuss education

Our Faculty,
Our Leadership,
Our Partners

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Faculty Leadership

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Patrick McGinnis	Program Director, Business Administration Distinguished Career Professor, Business Communication
Marion Oliver	Area Co-Head, Arts and Sciences Teaching Professor, Mathematics
Daniel Phelps	Program Director, Information Systems Associate Teaching Professor, Information Systems
Dudley Reynolds	Area Co-Head, Arts and Sciences Teaching Professor, English
Gordon Rule	Area Head, Biological Sciences Professor, Biological Sciences
Annette Vincent	Program Director, Biological Sciences Associate Teaching Professor, Biological Sciences

Faculty Members	
Nesrine Affara	Assistant Teaching Professor, Biological Sciences
Mustafa Akan	Associate Professor, Operations Management
Serkan Akgüç	Assistant Teaching Professor, Finance
Andres Amerikaner	Visiting Assistant Professor, English
Chadi Aoun	Associate Teaching Professor, Information Systems
Ravichandra Bachu	Assistant Teaching Professor, Chemistry
Serra Boranbay-Akan	Assistant Teaching Professor, Economics
Houda Bouamor	Visiting Assistant Professor, Information Systems
Mohamed Bouaouina	Assistant Teaching Professor, Biological Sciences
Jennifer Bruder	Assistant Teaching Professor, Psychology
Lauren Burakowski	Assistant Teaching Professor, Psychology
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Mohammad Hammoud	Assistant Teaching Professor, Computer Science
Khaled Harras	Program Director, Computer Science and Computational Biology Teaching Professor, Computer Science
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Ludmila Hyman	Assistant Teaching Professor, English
Zeinab Ibrahim	Teaching Professor, Arabic Studies
Valentin Ilyin	Associate Teaching Professor, Computational Biology
Aaron Jacobson	Visiting Assistant Professor, History
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Niraj Khare	Assistant Teaching Professor, Mathematics
Ramesh Krishnamurti	Professor, Architecture
Cecile le Roux	Visiting Assistant Professor, Organization and Behavior
Divakaran Liginlal	Teaching Professor, Information Systems

Faculty Members (continued)

Selma Limam Mansar	Senior Associate Dean, Education Area Head, Information Systems Teaching Professor, Information Systems
Teresa MacGregor	Director, Library
Patrick McGinnis	Program Director, Business Administration Distinguished Career Professor, Business Communication
Thomas Mitchell	Associate Teaching Professor, English
John O'Brien	Senior Associate Dean, Faculty and Outreach Area Head, Business Administration Associate Professor, Accounting and Experimental Economics
Kemal Oflazer	Associate Dean, Research Area Head, Computer Science Teaching Professor, Computer Science
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Michael Trick	Dean Harry B. and James H. Higgins Professor of Operations Research
Nui Vatanasakdakul	Visiting Associate Professor, Information Systems
Annette Vincent	Program Director, Biological Sciences Associate Teaching Professor, Biological Sciences
George White	Distinguished Career Professor, Entrepreneurship
Zelealem Yilma	Assistant Teaching Professor, Mathematics
Bonnie Youngs	Teaching Professor, French and Francophone Studies
Ihab Younis	Assistant Teaching Professor, Biological Sciences
Mohamed Zayed	Associate Teaching Professor, Physics

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Carnegie Mellon has built relationships with companies and organizations across various sectors. Our partners work closely with us by speaking through our Career Development Office, providing internships and jobs, participating in Executive Education courses, judging at Meeting of the Minds, sponsoring students, sponsoring events and strengthening ties through Memoranda of Understanding.

004 Arabia	Cisco
A.T. Kearney	Coca-Cola
Abu Issa Holding	Commercial Bank of Qatar
ADabisc	Communications Regulatory Authority
Adecco Group	Cosette Solutions
Al Emadi Enterprises	Council of Ministers
Al Faisal Holding	Darwish Holding
Al Jazeera Media Network	Davidson Consulting
Al Khalij Commercial Bank (al khaliji)	Deloitte
Al Sawari Holding	DHL
AlFaisal Without Borders Foundation	Digital Incubation Center
Alfardan Group	EBLA Computer Consultancy Company
Ali Bin Ali Group	EButler
Amiri Diwan	Education Above All
Aspire Zone Foundation	Embassy of the Republic of Serbia
Bain	Embassy of the State of Kuwait
Barzan Holdings	Ernst & Young
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Hilti	Qatar Environment and Energy Research Institute
Hochtief Vicon	Qatar Fertilizer Company
Huawei	Qatar Finance and Business Academy
INJAZ Qatar	Qatar Financial Center
Internal Security Force (Lekhwiya)	Qatar First Bank
Intesa Sanpaolo	Qatar Foundation
Jassim and Hamad Bin Jassim Charitable Foundation	Qatar Foundation Research, Development and Innovation
Katara Cultural Village	Qatar Investment Authority
KPMG	Qatar Mobility Innovation Center
MADA Qatar Assistive Technology Center	Qatar Museums Authority
Malomatia	Qatar National Bank
Mazars	Qatar National Research Fund
Mazaya Qatar	Qatar Olympic Committee
McKinsey & Company	Qatar Petrochemical Company (QAPCO)
Meddy	Qatar Petroleum
Medihealth Solutions At-Home-Doc	Qatar Science and Technology Park
Microsoft	Qatar Shell
Ministry of Administrative Development, Labour and Social Affairs	Qatar Solar Technologies
Ministry of Commerce and Industry	Qatar Stock Exchange
Ministry of Defense	Qatar University
Ministry of Education and Higher Education	QatarGas
Ministry of Finance	QInvest
Ministry of Foreign Affairs	QLife Pharma
Ministry of Interior	Regency Group Holding
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Olympic Stars	Siemens Qatar
Omani Embassy in Doha, Qatar	Silatech
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Planning and Statistics Authority	Teach For Qatar
PricewaterhouseCoopers	TESOL International Association
Qatar Airways	Texas A&M University at Qatar
Qatar Armed Forces	Trio Investment
Qatar Biobank	U.S. Embassy in Qatar
Qatar Biomedical Research Institute	VCUArts Qatar
Qatar Business Incubation Center	Vodafone Qatar
Qatar Cancer Society	Weill Cornell Medicine—Qatar
Qatar Central Bank	World Innovation Summit for Education (WISE)
Qatar Chemical Company Ltd (Q-Chem)	Woqood
Qatar Computing Research Institute	Zomato
Qatar Credit Bureau	

About Us

For more than a century, Carnegie Mellon University has challenged the curious and passionate to imagine and deliver work that matters. A private, top-ranked and global university, Carnegie Mellon sets its own course with programs that inspire creativity and collaboration.

In 2004, Carnegie Mellon and Qatar Foundation began a partnership to deliver select programs that will contribute to the long-term development of Qatar. Today, Carnegie Mellon Qatar offers undergraduate programs in biological sciences, business administration, computational biology, computer science, and information systems. More than 400 students from 48 countries call Carnegie Mellon Qatar home.

Graduates from CMU-Q are pursuing their careers in top organizations within Qatar and around the world, and many have started their own entrepreneurial ventures. With 12 graduating classes, the total number of alumni is more than 800.
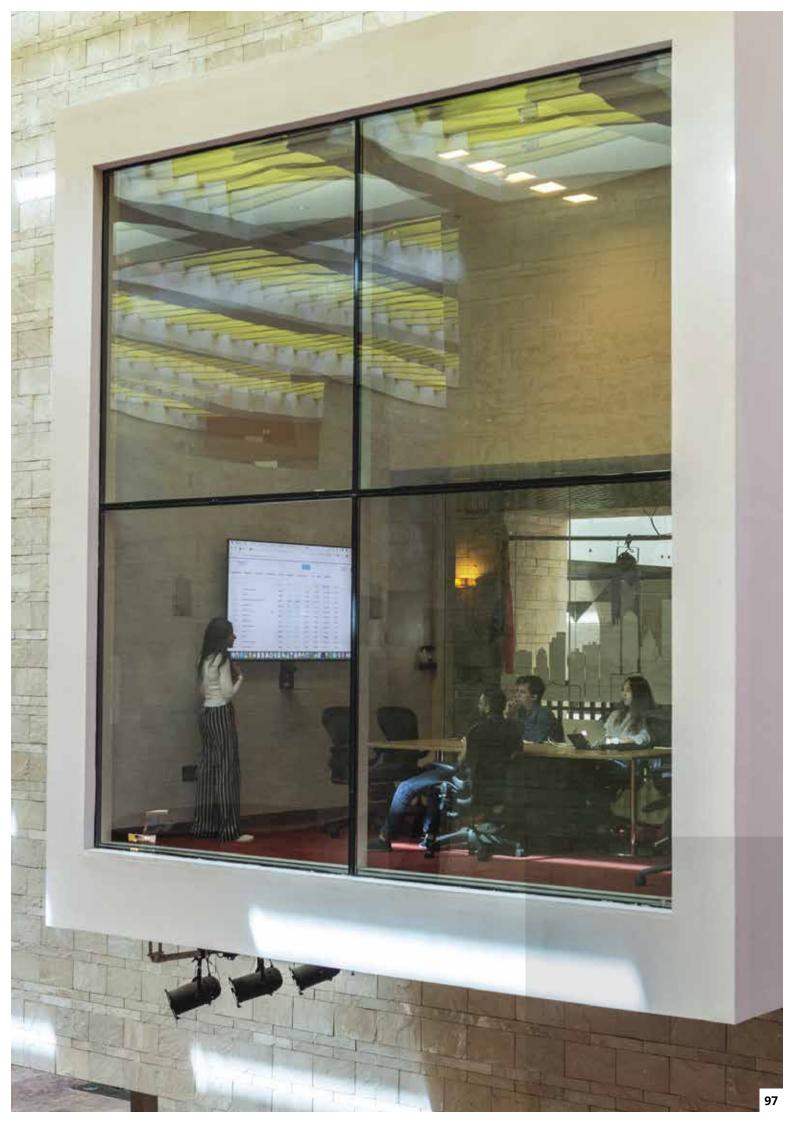
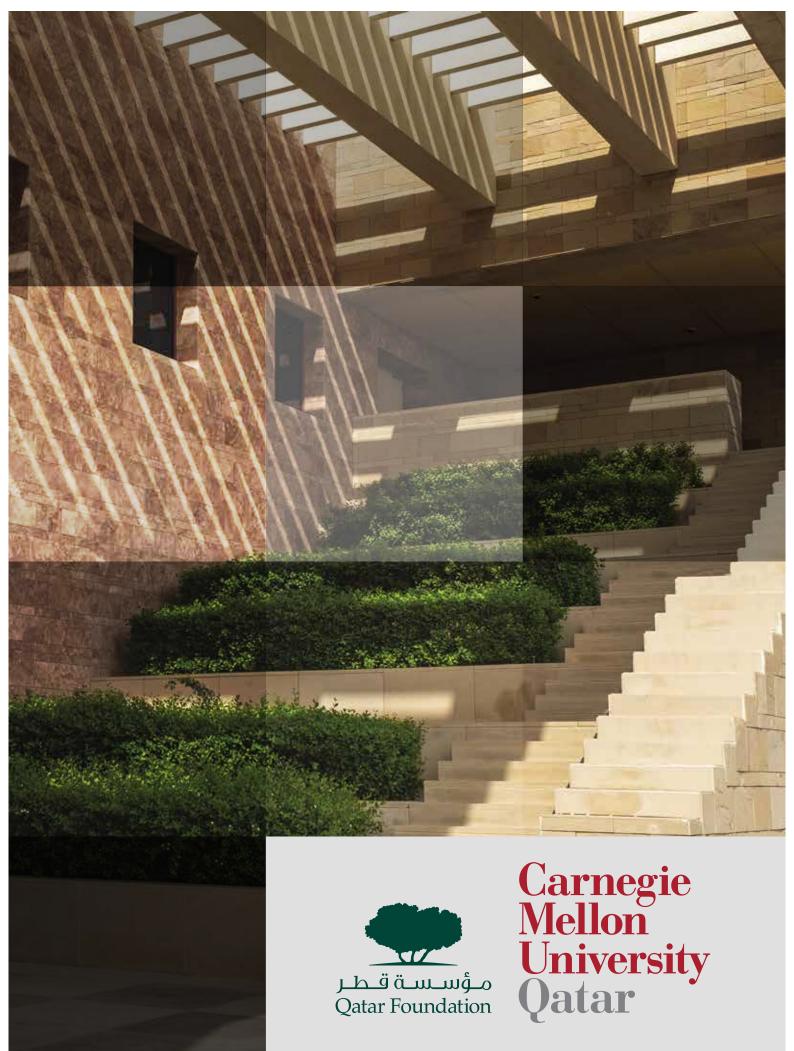To learn more, visit www.qatar.cmu.edu and follow us on:

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