

# Carnegie Mellon University Qatar

**April 2014** 

#### Outline

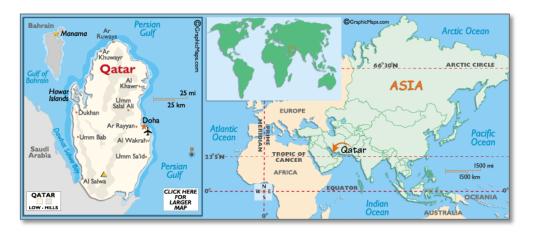
- Context: Qatar and Education City
- Programs
- Faculty
- Students
- Alumni
- Other



#### **Qatar**



#### Qatar



- ~ 2.05M people (< 300,000 Qataris)</li>
- Highest GDP per capita (\$145,300)
  - 19.4% real growth rate (2<sup>nd</sup> in the world)
  - Oil and gas is 70% of GDP
- Be a knowledge-based economy by 2030
  - Huge investment in education
  - 2.8% of GDP committed to research

Source: CIA Factbook 2011



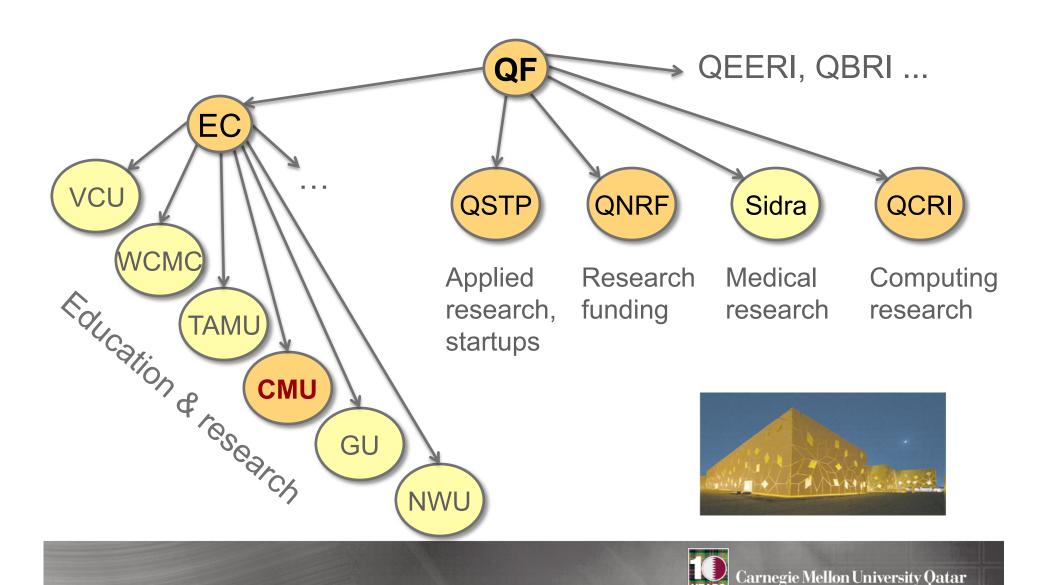
# Doha



#### **Qatar Foundation**

- An independent nonprofit organization committed to the developmengt of Qatar and its people
  - Founded 1995
  - Chaired by Sheika Moza

#### **Qatar Foundation**



# **Education City**

- 3700 acres
- 8 international branch campuses
- ~2,500 students
  - 30% live on campus
  - 90 students nationalities
  - 70 percent of students receive QF scholarships or loans

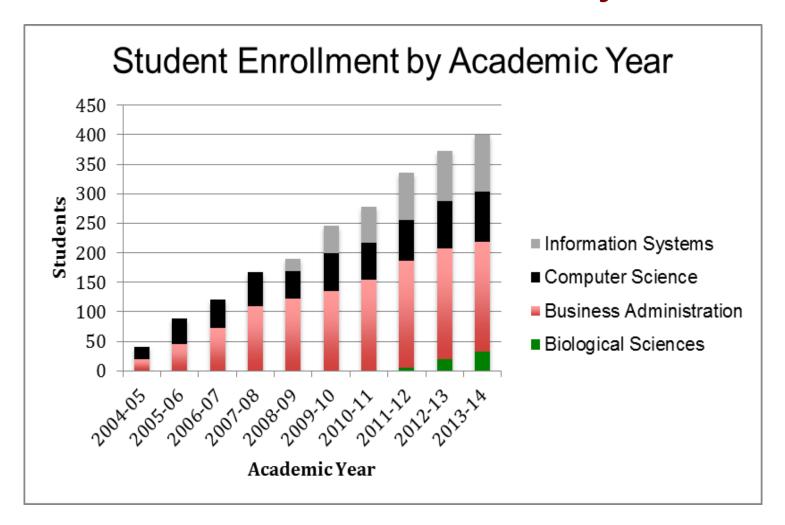
# Carnegie Mellon University in Qatar

- Started in 2004
  - 10<sup>th</sup> year Celebrations on March 18, 2014
- Offer Undergraduate Degrees
  - Biological Sciences (2011)
  - Business Administration (2004)
  - Computational Biology (2011)
  - Computer Science (2004)
  - Information Systems (2007)

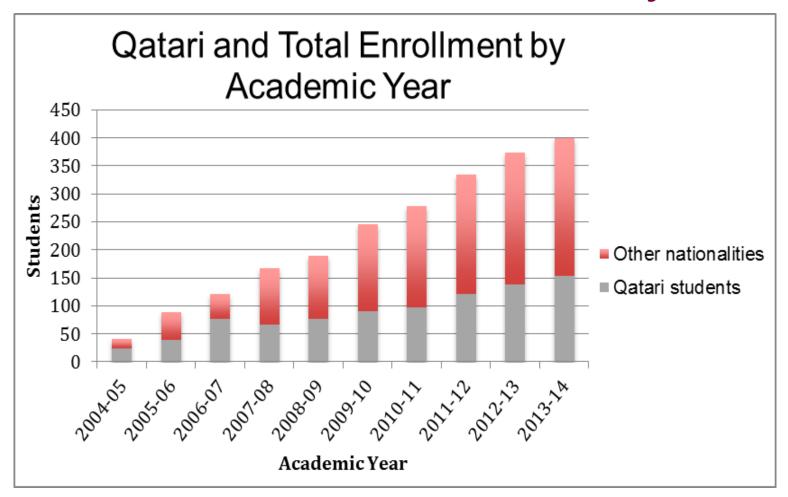
# Faculty

- Business Administration 14
- Biology 5
- Computer Science 10
- Information Systems 5
- General Education 20
  - Math, Sciences, English, Humanities

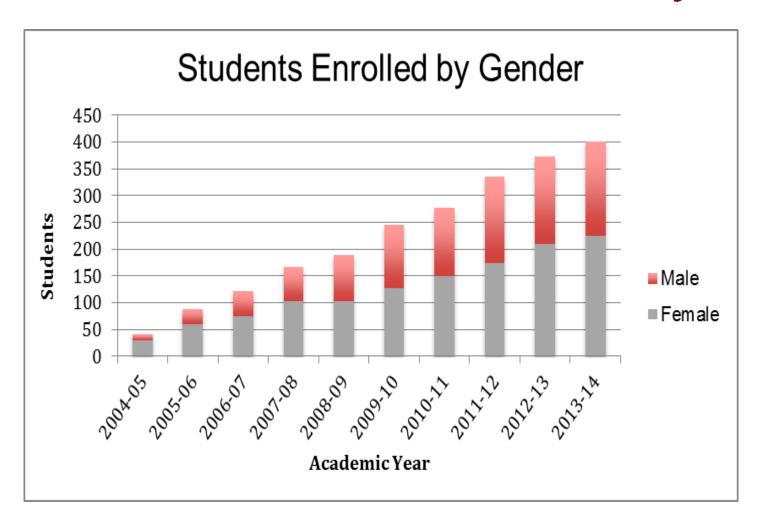
#### Students: 10 Year Summary



# Students: 10 Year Summary



### Students: 10 Year Summary



# Students (As of Spring 2014)

			Qatari		Non-Qatari		Total by Gen		
			Female	Male	Female	Male	Female	Male	Total
Spring 2014 Enrollment	Q B A	Fresh	18	3	11	13	29	16	45
		Soph	22	4	9	6	31	10	41
		Junior	20	6	13	13	33	19	52
		Senior	12	4	8	18	20	22	42
		Total	72	17	41	50	113	67	180
	QBA	Fresh	6	2	3	3	9	5	14
		Soph	2	0	9	2	11	2	13
		Junior	0	1	1	2	1	3	4
		Senior	1	1	1	0	2	1	3
		Total	9	4	14	7	23	11	34
	QC%	Fresh	1	2	9	19	10	21	31
		Soph	0	1	6	12	6	13	19
		Junior	0	2	2	11	2	13	15
		Senior	1	1	3	5	4	6	10
		Total	2	6	11	47	22	53	75
	Q-s	Fresh	12	2	7	5	19	7	26
		Soph	8	1	3	6	11	7	18
		Junior	10	2	6	10	16	12	28
		Senior	8	0	6	13	14	13	27
		Total	38	5	22	34	60	39	99
		Total	121	32	88	138	218	170	388

### Student Exchange

Pittsburgh / Doha Exchange							
Semester	Pitt > Doha	Doha > Pitt					
2006 Fall	0	1					
2007 Fall	0	1					
2007 Spring	0	1					
2008 Fall	5	12					
2008 Spring	8	2					
2008 Sum 1	0	7					
2008 Sum 2	0	5					
2009 Fall	0	8					
2009 Spring	10	7					
2009 Sum 1	1	14					
2009 Sum 2	0	7					
2010 Fall	3	9					
2010 Spring	12	5					
2010 Sum 1	0	14					
2010 Sum 2	0	7					
2011 Fall	1	6					
2011 Spring	6	8					
2011 Sum 1	0	20					
2011 Sum 2	0	15					
2012 Fall	0	18					
2012 Spring	5	8					
2012 Sum 1	0	25					
2012 Sum 2	0	28					
2013 Fall	1	14					
2013 Spring	0	10					
2013 Sum 1	0	43					
2013 Sum 2	0	26					
2014 Spring	0	13					
2014 Sum 1	0	30					
2014 Sum 2	0	4					
Total	52	368					

#### Graduates

Graduation Data									
Date	QBA	QBS	QCS	QIS	Total				
05/18/08	18	0	10	0	28				
08/12/08	3	0	0	0	3				
12/18/08	3	0	2	0	5				
05/17/09	18	0	7	0	25				
08/11/09	6	0	0	0	6				
12/17/09	2	0	0	0	2				
05/16/10	20	0	4	4	28				
08/10/10	3	0	0	0	3				
12/16/10	4	0	0	1	5				
05/15/11	30	0	4	6	40				
08/09/11	1	0	0	0	1				
12/22/11	7	0	2	5	14				
05/20/12	25	0	5	9	39				
08/14/12	3	0	3	1	7				
12/20/12	4	0	3	2	9				
05/19/13	33	6	10	15	64				
08/13/13	6	0	2	1	9				
12/19/13	3	0	1	1	5				
Total	189	6	53	45	<b>293</b>				

# **Graduate Employment**



Top 10 Sectors

- Oil and Gas Industries
- Banking & Finance
- Education
- Technology
- Non-Profit Orgs

- Telecommunications
- Industrial Goods
- Government
- Research and Development
- Arts and Culture



# Graduate Employment

#### Carnegie Mellon University Qatar

#### Top 10 Employers

























### Graduate Employment

- KPMG
- PWC
- Ernest & Young
- RasGas
- Qatar Olympic Committee
- Qatar Petroleum
- Dolphin Energy
- Northwestern Univ. Qatar
- Conoco Phillips
- MS Research
- Exxon Mobil
- Qatar Gas
- ICT Qatar
- CMU-Q
- Google
- Microsoft
- Disney World

- Qatar Foundation
- Nestle
- Citi
- HSBC
- Qatar National Bank
- Qatar Central Bank
- Commercial Bank of Qatar
- GE
- Qtel/Ooredoo
- Shell
- QWIC
- Fuego
- QCRI
- Doha Int. Airport
- vodafone

#### **Graduate Schools**

- PhD, RI at SCS, CMU-P
- MS, HCII at SCS, CMU-P
- MS, CS at SCS, CMU-P
- MS, CS at University of Michigan (2)
- PhD, CS at UC Irvine
- MS, MISM at Heinz College, CMU-P
- MS, Public Policy at Heinz College, CMU-P
- MS, Oxford University
- MS, UC London
- MS, Univ. of Liverpool
- MS, VCU
- MS, Duke University
- MS, Leipzig Graduate school of Management
- MS, King's College
- MS, London School of Economics
- MS, Cass Business School London

#### Accepted this year

- M.Sc., CS CMU-P
- 5<sup>th</sup> Masters, RI, CMU-P
- M.Sc., HCI, CMU-P
- M.Sc., CS, Stanford
- M.Sc., CS, G Tech
- M.Sc., HCI, Univ. Mich.
- M.Sc., MIS, Univ. Arizona

# Student Achievements (QCS)

- Google Anita Borg Scholarships
  - Keghani Kouzoujian ('09)
  - Samreen Anjum ('10)
  - Hanan Alshishabubakr ('13)
  - Sidra Alam ('13)
- Phi Beta Kappa
  - Hend Geddawy ('09)
- SCS Alumni Thesis Awards ('08, '09)
  - Noura El'Moughny ('09)
  - Hatem Alismail ('09)
- Grace Murray Hopper Undergraduate Research Award (2013)
  - Amna AlZeyara ('14)
- Qatar Annual Research Award
  - Amna AlZeyara ('14) won in 2011
  - Dania Abedabbou ('12) won in 2012
- Andrew Carnegie Scholar ('09)
  - Qatar Andrew Carnegie Scholar ('10, '11)
- Student papers at international conferences
  - IEEE ICRA'07, IEEE/RSJ IROS'09, ACM DEV 2010 (x2)
  - ICTD 2010, student monograph

#### 5th Year Scholar

- Keghani Kouzoujian ('09)
- Afnan Fahim ('13)

# Student Achievements (QIS)

- Founding of the first students' chapter of the AIS association in the GCC
- AIS student chapter won the best communication award in 2011
- First place in AIS students competition in 2012, for IT risk management
  - Aamir Masood ('12)
- 1st Prize GCC Henkel competition in 2014
  - Jaasim Polin, Sarah Mustafa ('14)
- Best paper award, UCIS, 2014
  - Daniel Cheweiky ('14)
- Andrew Carnegie Scholar
  - Qatar Andrew Carnegie Scholar ('13)
- Senior honors thesis
  - Fatema Akbar ('13), Marwa Al-Fakhri ('13)
  - Seven in progress ('14)
- Student papers at international conferences, Book Chapters
  - Procedia Technology, Elsevier, The International Journal of Telemedicine and Applications
  - Information Systems and Technologies for Enhancing Health and Social Care, IGI
  - ISDOC'12, The Hamlyn Symposium on Medical Robotics'12
  - Keynote speech Ellucian Live Middle East conference on technology and education
  - UCIS'11,'12,'13,'14



#### **Outreach Activities**

- Distinguished Lectures
- Dean's Lecture Series
- Dignitaries
- Seminars
- Executive Ed, Public Workshops and Tutorials
  - E-business strategies
  - Natural Language Processing
  - Cyber Security
  - Conflict Resolution
  - Qatari Law
  - Dynamic organizational leadership
  - Bioinformatics...
- Educational Outreach
- Conferences

#### Distinguished Lectures

- A. Nico Habermann Distinguished Lectures
  - Raj Reddy, Randy Bryant, Kurt Mehlhorn, Takeo Kanade, Tom Mitchell
- Richard Cyert Distinguished Lectures
  - Kannan Srinivasan, Finn Kydland, Jerome Apt III
- Patrick Crecine Distinguished Lectures
  - John P. Lehoczky,

### **Dignitaries**

- Hillary Clinton Sec. of State
- Steven Chu Sec. of Energy
- Bill Gates

#### Conferences

- ICTD
- LPAR 2008
- ASIAN '07

2009

**IEEE/ACM International Conference** on Information and Communication Technologies and Development

April 17 - 19, 2009 Carnegie Mellon Qatar Education City, Doha, Qatar























- Keynotes by Bill Gates and Carlos Braga
- 100+ registrations to date plus ~100 scholarship applications
- 18 papers accepted for oral presentation
- 27 papers accepted for poster presentation
- 4 panels, 3 workshops, ~40 demos

HOST ORGANIZATION

Carnegie Mellon

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Computer Science Carnegie Mellon Qutar





**Edmund Clarke** Carnegie Mellon University (USA)

2007 Turing Award Recipient



**Amir Pnueli** New York University

(USA)

1996 Turing Award Recipient



Michael Backes Saarland University and MPI-SWS (Germany)



**Thomas Eiter** Technical University of Vienna (Austria)







#### Top conference in computational logic

- 154 submissions (all times record), 45 papers accepted
- 4 prestigious invited speakers
- Peer-reviewed
- Proceedings





# Twelfth Annual Asian Computing Science Conference Focusing on Computer and Network Security

Carnegie Mellon University Qatar Campus, Doha, Qatar

December 9-11, 2007

جامعة كارنيجي ميلون في قطر Carnegie Mellon QATAR CAMPUS



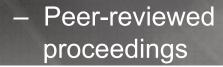














#### **Educational Outreach**

- CS4Qatar
  - Computer Science for High School Students
- High School Programming Competition
- Botball
- Ibtikar Innovation
- Live the Information Systems experience
- Tajer-Day Commerce Day (BA)
- Biotechnology Explorer
- Summer College Preview Program



# Pittsburgh – Qatar Interaction in Education

- 67-329: Contemporary themes in global systems: Joint global projects
- Architecture: Joint videoconference course
- 15-213 Computer Systems (Summers)
- 15-389 Cloud Computing (Springs)
- 15-418 Parallel Computer Architecture and Programming (Springs)
- 15-384 Robotic Manipulation
- Misc. History Courses



#### Research

- Since 2008, Qatar National Research
  Fund (QNRF) has been funding projects
  - NPRP National Priorities Research Program
  - YSREP Young Scientists Research Experience Program
  - UREP Undergraduate Research Experience Program
- QNRF also supports Post-docs and PhD students.

#### Research

- CMU-Q as submitting institution was awarded
  - 32 NPRP Projects (~\$1M each)
    - 13 jointly with colleagues in CMU-P
  - 5 YSREP Projects (~\$300K each)
  - 16 UREP Projects (~\$10K each)
- Numerous Post-docs and Research Associates/Engineers employed on these projects

#### **Thanks**

Questions?