



معهد قطر لبحوث الحوسبة  
Qatar Computing Research Institute

عضو في مؤسسة قطر  
Member of Qatar Foundation



**Join the Innovation**



Qatar Computing Research Institute (QCRI) is a national research institute established in 2010 by Qatar Foundation for Education, Science and Community Development.

As a primary constituent of QF Research and Development, QCRI supports the mission to build Qatar's innovation and technology capacity by focusing on large-scale computing challenges that address national priorities for growth and development. ”

## OUR VISION

To be a global leader of computing research in identified areas that will bring positive impact to the lives of citizens and society.

## OUR MISSION

To conduct innovative, multidisciplinary applied computing research that addresses national priorities by:

- Enhancing the quality of life for citizens
- Enabling broader scientific discoveries, and
- Making local businesses more competitive globally

## OUR STRATEGIC OBJECTIVES

- Excellent research programs
- Local engagement, outreach and technology transfer
- Capacity building
- Commercial impact
- Worldwide recognition and collaborations with leading international organizations

# OUR RESEARCH PROGRAMS

## Cyber Security

### Threats analysis and mitigation

Analyze patterns and trends related to malware, botnets and other offensive computing technologies.

### Cyber intelligence

Analyze the socio-economic aspect of cyber attacks using big data analytics and other techniques to understand attackers, their methods and trends.

### ICS and SCADA

Develop technological solutions to address special unique cyber problems affecting Qatar's critical infrastructure in key industrial sectors.

## Arabic Language Technologies

### Enabling information flow across language barriers

Retrieve Arabic language content and make it accessible through advanced exploratory search technologies, natural language processing, content generation and analytics.

### Enriching Arabic digital content

Focus on closing the gap caused by the lack of valuable Arabic content on the web (Ethraa initiative).

## Data Analytics

### Robust ecosystem for data sciences and big data analytics

Build robust ecosystem for data sciences and big data analytics, and develop highly scalable technologies in the areas of data curation; data fusion; measurement, analysis, discovery & visualization; and big data infrastructure.

## CYBER SECURITY GRAND CHALLENGE

Cyber security is an ongoing challenge—the science is ever-evolving and the attacks evolve along with the science. Important to the success of preparing and protecting Qatar against cyber vulnerabilities is basic and applied research that will create the new defensive and offensive technologies, and accelerate their introduction to practical use. QCRI will lead the nation's research efforts in cyber security.

## Distributed Systems

Cloud data infrastructure, scalable cloud analytics, HPC in the cloud

Improve the computation and data infrastructure available to users of computing clouds.

## Sports Analytics

Develop new methods for evaluating the performance of teams and players in football with application to other sports.

## Social Computing

Studying online media in multi-cultural societies

Analyze the social fabric, integration and tension in multi-cultural, multi-ethnic, multi-lingual societies.

Social computing for better health and well-being

Combine data from sensors, surveys and social media to implement culturally-aware interventions to reduce obesity and other health problems.

Analytics for journalism, online news and social media

Study the interplay between social media news and traditional news, to contextualize stories, to relate them to the reader, and to predict news consumption.

Computing for human development and crisis management

Use both online and offline data to quantify variables related to human development, economics, migration and crisis resilience.

## Computational Science and Engineering

New research program with a focus on computational biology targeting cancer bioinformatics and systems biology of complex diseases. Plans to expand to large scale scientific and engineering simulations from energy and environment.



# QCRI IN FIGURES

Established in	2010
Total Staff	140, including 120 research staff
Staffing plans through 2018	300
Number of peer reviewed publications	350+
Number of staff citations	100,000+
H-Index (senior researchers)	24.2
Patent families filed	72
Patent families granted	8
Software applications and platforms developed	35
Technologies licensed	4
Start-up launched	1



## OUR RESOURCES

- World-class scientists and local capabilities
- World-class research facilities
- Strong partnerships with international and local collaborators

# CONTACT US

**Tel:** +974 4454 0629

**Fax:** +974 4454 0630

**Email:** [QCRIinfo@qf.org.qa](mailto:QCRIinfo@qf.org.qa)

18th Floor, Tornado Tower

PO Box 5825

Doha, Qatar

[www.qcri.qa](http://www.qcri.qa)



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