

10 Intriguing Spaces in QI's Atkinson Hall

QI Spaces: Virtual Tour of Atkinson Hall



By:

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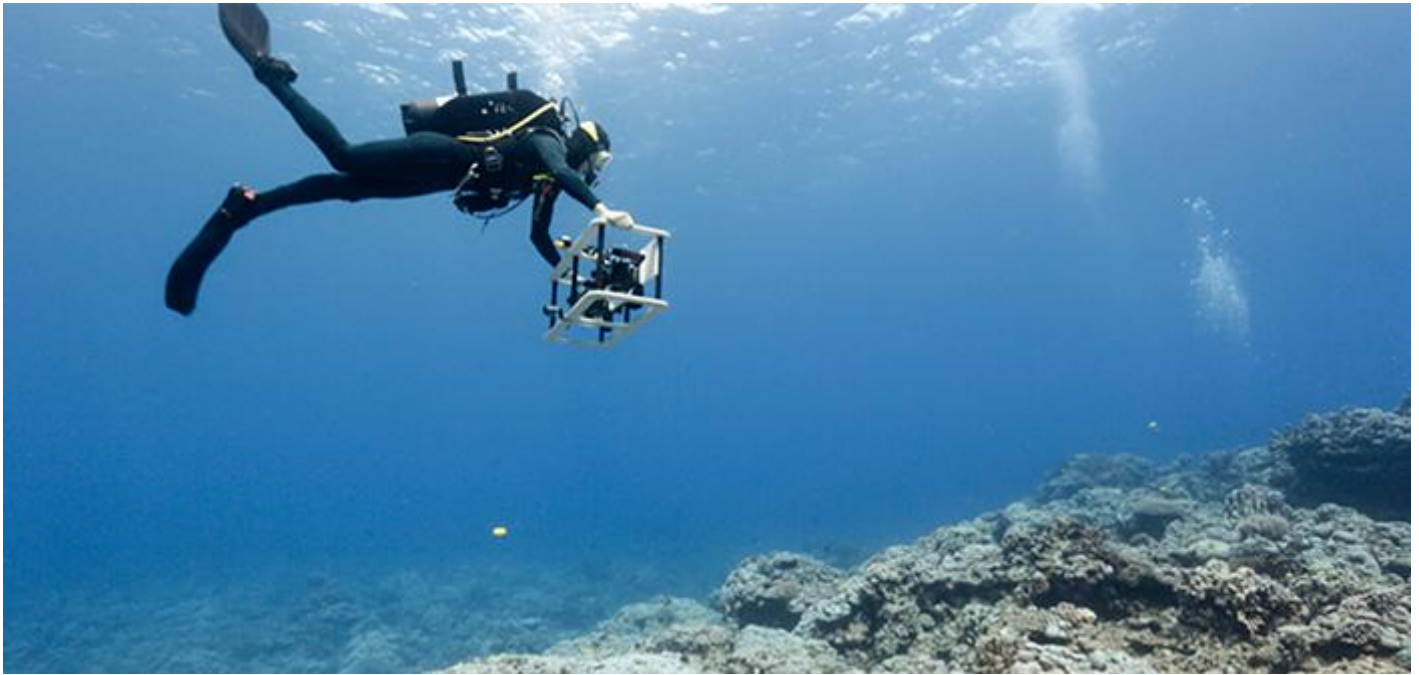
The Qualcomm Institute (QI), a nonprofit institute situated in the heart of UC San Diego, contains an array of facilities used to jumpstart innovation via technology. Here are 10 highlights of the multidisciplinary operation.



The MEG team—including (left to right) MEG Center Co-Director Mingxiong Huang, Staff Research Associate Zhengwei Ji, MEG Center Director Roland Lee, and Staff Research Associate Annemarie Angeles Quinto—shows the new MEG instrument to QI Director Ramesh Rao (right). (Photo by Alex Matthews)

MEG Center

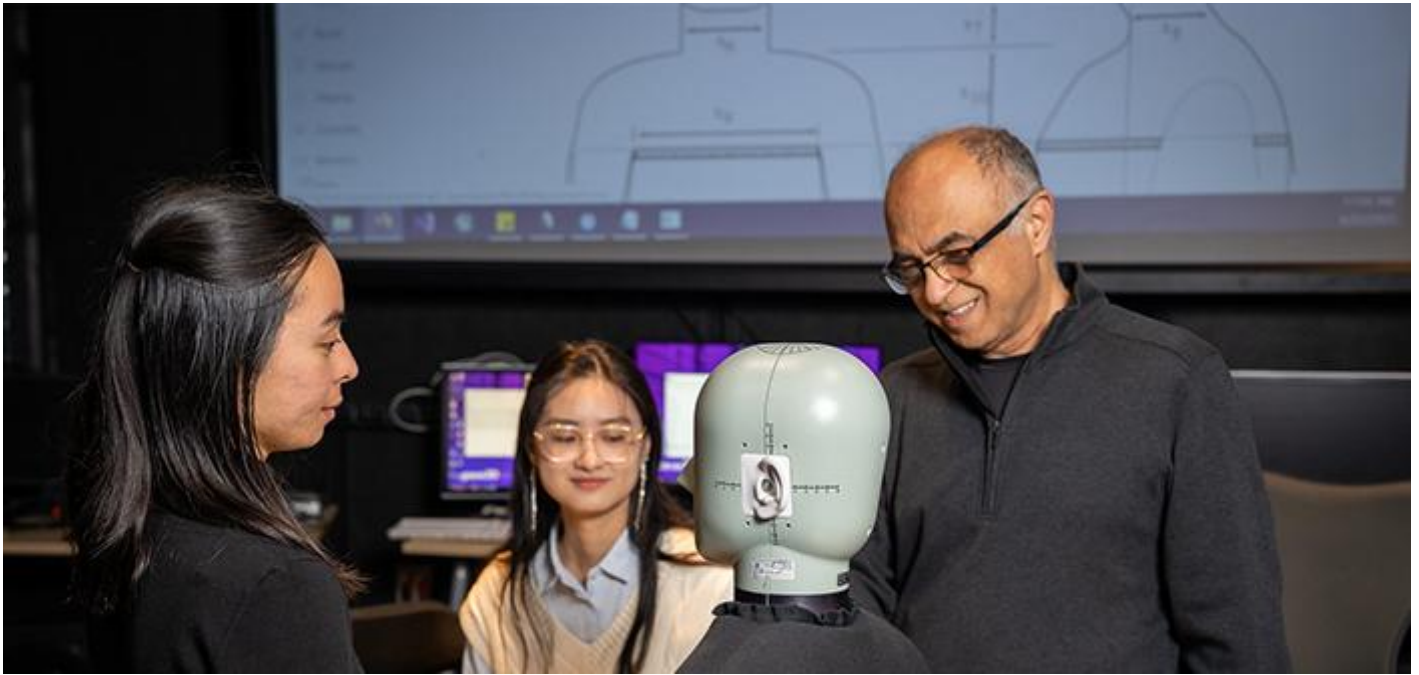
QI's newest space is the [MEG facility](#), one of only about 20 like it in the country. Here, an advanced technique called magnetoencephalography provides precise brain imaging that is safe, non-invasive and painless. The MEG team has helped patients by finding the exact location of epileptic seizures before corrective surgery, mapping brain networks in PTSD, and assessing treatments for schizophrenia.



Coral reef researchers canvas a reef in Palmyra Atoll, south of Hawaii. Thanks to technologists from CHEI, the detailed models from the data can be navigated and studied interactively. (Photo by Stefani Gordon)

Cultural Heritage Engineering Initiative

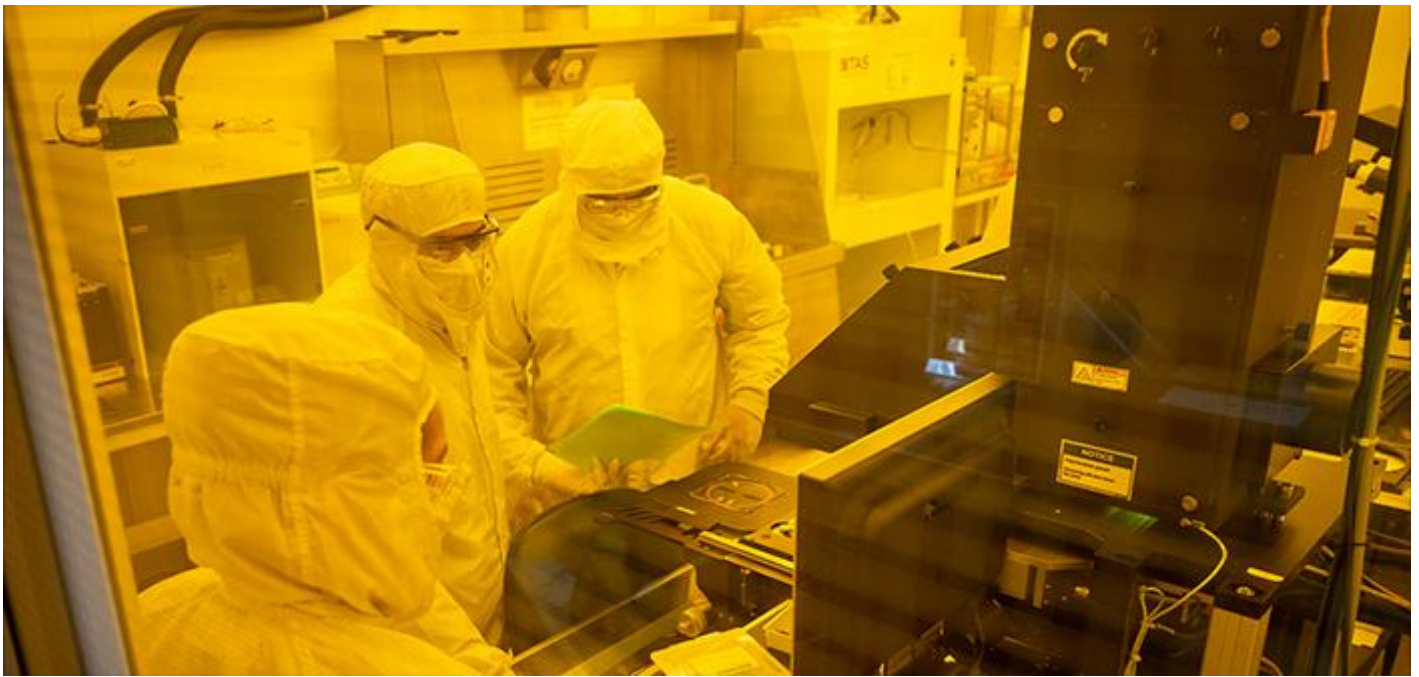
The [Cultural Heritage Engineering Initiative](#) (CHEI) is one of more than a dozen interdisciplinary groups in the building. This team uses 3-D visualization equipment to preserve information from key historic and environmental sites—from ancient Maya caves, to endangered coral reefs. Team members are also involved in using technology to track wildfires and other natural disasters.



*QI Associate Director Shahrokh Yadegari (right) collaborates with students in the Audio Spatialization Lab.
(Photo by Alex Matthews)*

SPAT Lab

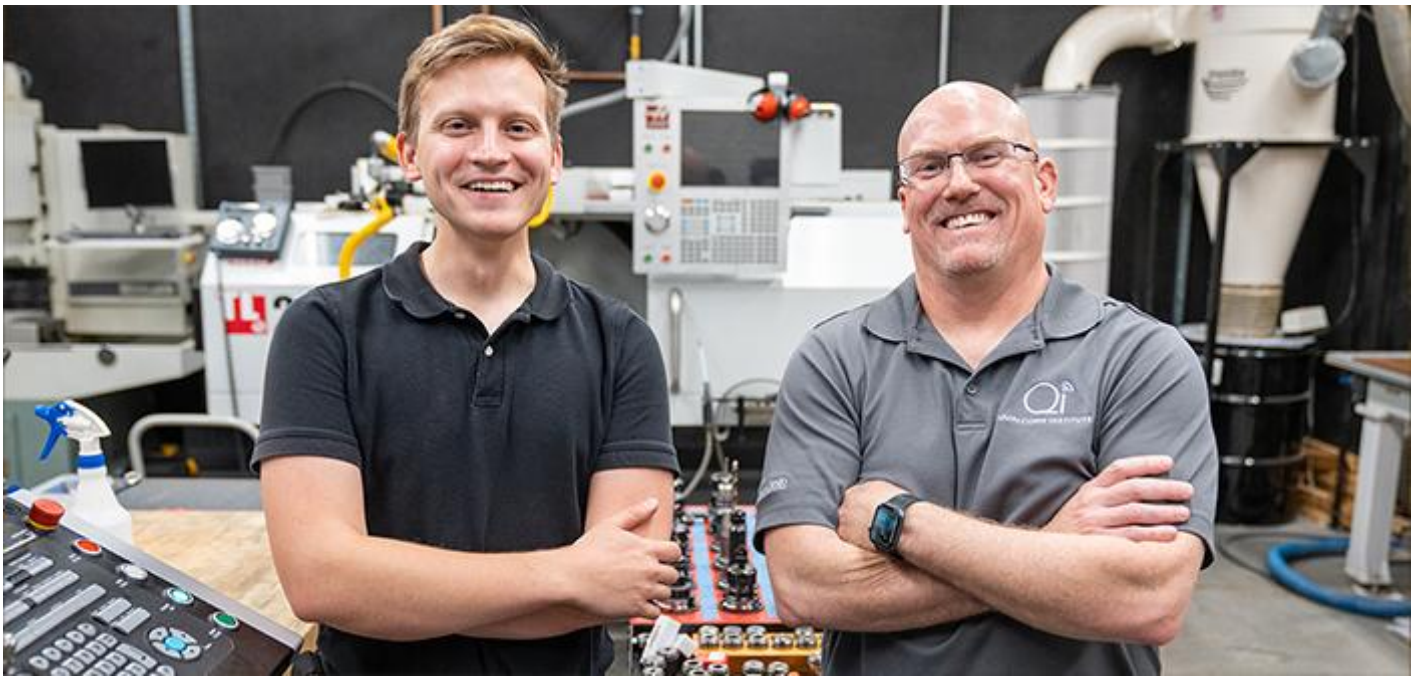
Have you ever wondered what it would feel like to be in a virtual reality sound room? One QI team — the [Sonic Arts Research and Development](#) group — is exploring the possibilities in the Audio Spatialization (SPAT) Lab. Here, the team pushes the boundaries of art, music and engineering with 360 degree sound.



QI's cleanroom provides a facility for nanofabrication in science, engineering and medicine, as well as for specialized workforce development training. (Photo by Alex Matthews)

Nanotechnology Cleanroom

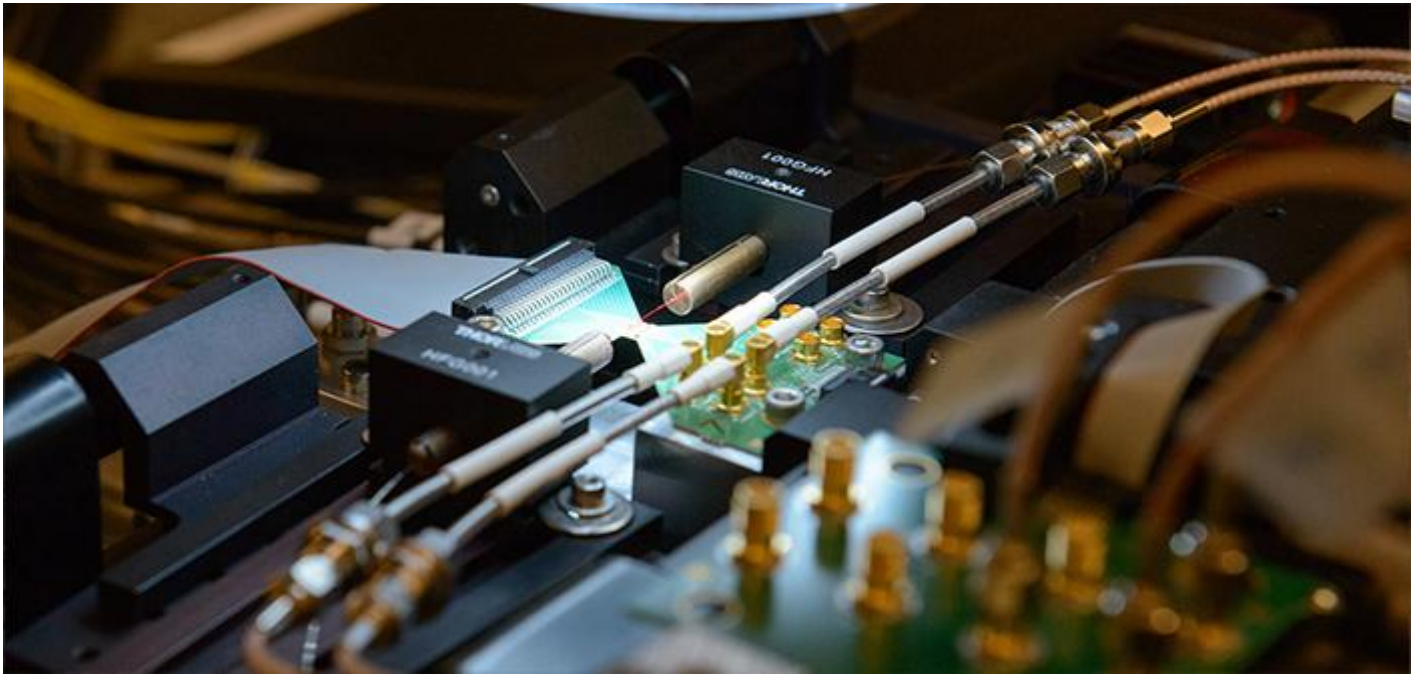
QI offers the UC San Diego and local communities use of a number of shared services. These include the [Nano3 cleanroom](#), where innovators come to make something very small—like microchips or parts of medical devices. Specially designed rooms filter out dust and other airborne particles so these creations can succeed.



Prototyping Facility Engineers Ryan Noe (left) and Brett Butler provide expertise to researchers who want to design and build a wide variety of physical prototypes. (Photo by Alex Matthews)

Prototyping Facility and Design Studio

The [Prototyping Lab](#) is a popular stop for faculty and students looking for help designing and building physical models of their ideas. For example, during the COVID-19 pandemic, the facility was used to build models of a new low-cost emergency ventilator and other health care solutions.



The Circuits and Photonics Labs at QI serve researchers from UC San Diego as well as local industry. (Photo by Alex Matthews)

Circuits and Photonics Labs

Complementing other services, the [Circuits](#) and [Photonics](#) Labs offer custom electronics design and specialized equipment for research on sensing, imaging and signal processing. These labs have helped set new world records in energy efficiency and power amplification.



Gallery QI, located on the first floor of Atkinson Hall, puts critical art and technology is on display. Here, designer and technologist Catherine Eng demonstrates how a mobile phone app dovetails with the Gallery QI show "Beyond the Metaverse with OurWorlds: Indigenous Stories Are All Around You." (Photo by Alex Matthews)

Gallery QI

On the creative side, [Gallery QI](#) hosts exhibits that unite art and technology in unexpected ways. Under the guidance of a faculty committee, exhibits have explored diverse topics—such as how augmented reality can highlight Native cultures, and how protest can take a digital form. All shows are free and open to the public.



The theater can host up to 90 guests for lectures, meetings, poster sessions, exhibitions, receptions and performances. Here, ultra-high-resolution scans of Chinese artwork accompany a performance of "Hearing Landscapes" by composer and QI Artist-in-Residence Lei Liang.

Theater

Atkinson Hall hosts more than 100 [events](#) per year, both for QI and other campus groups. Sought-after spaces include the Theater, a black-box space that can be reconfigured for poster sessions, workshops, and art and music performances. The room also sports a 20 x 20-foot ultra-high-resolution display.



The Auditorium seats up to 201 and is the center of many events in Atkinson Hall, including this showcase of the QI Neurodiversity in Tech internship program.

Auditorium

Another in-demand space is QI's auditorium, which seats more than 200. Sophisticated visual and sound equipment make presentations—from the traditional to the experimental—come alive.



QI Innovation Space provides tenants, including staff from biotech startup Dimension Genomics (above), access to the full array of QI services, as well as to opportunities for collaboration with world-class UC San Diego faculty, researchers and students/interns.

Qualcomm Institute Innovation Space

Finally, QI offers startup companies a place to grow and thrive. Tenants in the [QI Innovation Space](#) have easy access to QI's facilities, UC San Diego faculty, and student interns. More than 50 ventures in virtual reality, biotech, energy, and data science have made QI home.

To learn how to connect with QI about its spaces, visit qi.ucsd.edu/contact.

Video credits

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