## Where Are We?

We welcome participants from all over the world. Most of us are from the United States, but we have active members in Europe and Asia. The majority of our collaboration is online through the mailing list, Slack workspace, and GitHub repositories.

Here are some of the events where we have presented, exhibited or run workshops.

GNU Radio Conference, IEEE Radio and Wireless Week, TAPR DCC, Open Source Cubesat Workshop, AMSAT-NA Space Symposium, JAMSAT Space Symposium, Microwave Update, DEFCON, Burning Man, HamCation, Hamvention

Participants are active at local hamfests, as school volunteers, at radio club meetups, DEFCON groups, and maker meetups.

**Join our mailing list**
https://lists.openresearch.institute/

## How Can We Help *You*?

Do you have work that you want to share with the public?

Want to join or start an project?

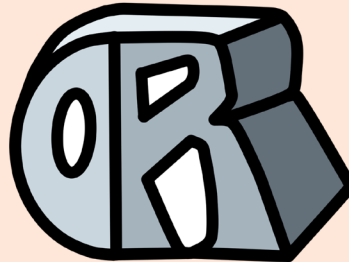Get in touch! We'd love to talk with you.

## Can You Help Us?

Want to support our work? Interested in helping our volunteers succeed?

Welcome aboard! Let's talk.

### Board of Directors of ORI

Bruce Perens K6BP
Ben Hilburn KJ4DDR
Michelle Thompson W5NYV

## Contact us!

ori@openresearch.institute

BOX 8552
BERKELEY CA 94707-8552
USA

**GRCon20:**

Open Research Institute will serve as the accounting sponsor for GNU Radio Conference 2020.
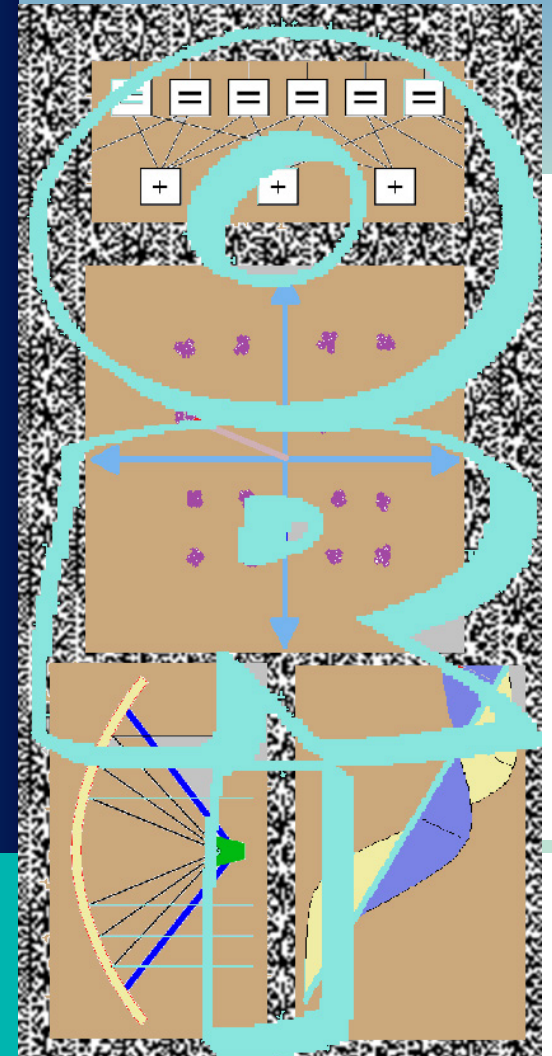
It is an honor to serve the GNU Radio community and provide critical support for this premier event.

Find out more about GNU Radio Conference and the GNU Radio community at

gnuradio.org

*The Exemplar of Open Research and Development*

 @OpenResearchIns

 Open Research Institute

 Open Research Institute

# Open Research Institute

## What are we about?

# Open Research Institute

**Where will we go next? Find out!**

https://openresearch.institute/

**Visit the website for our latest news!**

Open Research Institute (ORI) is a non-profit research and development organization which provides all of its work to the general public under the principles of Open Source and Open Access to Research.

ORI is a United States 501(c)(3) with contributors around the world.

There are no membership fees or applications to join ORI. You join by participating. We have a mailing list, a Slack workspace, and GitHub repositories.

We have Developer and Participant Policies, and a Code of Conduct. Both are available on our website along with our corporate documents and our bylaws.

ORI is a proud member of OSI, the Open Source Initiative.

## Regulatory

ORI supports people peacefully working together on open source projects.

All of our work (source code, schematics, hardware designs) is available for public download, worldwide, from our web server at http://openresearch.institute/public/

Our intent is for all of this work to be "Public Domain" under ITAR 120.11 and "Published" under EAR 734.7, and thus not subject to ITAR or EAR. These regulations are relevant in the United States.

In addition, it is ORI's policy not to provide services that might be restricted under ITAR or EAR, and we do not do projects involving the national defense of any country.

## Technology

Recent technical achievements include:

Dual-band feed for 5GHz up and 10GHz down amateur satellite payloads.

Generic Stream Encapsulation (GSE) protocol from DVB now in GNU Radio and Wireshark.

Support of Low Density Parity Check (LDPC) open source codebases. This work is in GNU Radio, leandvb, and more.

Current work:
Open source VHDL implementation of LDPC.

Open source broadband microwave digital transponder suitable for space and terrestrial use.

Open source heavy duty rotator.

Open source 6U GEO payload project!

## Teaching

We believe you do not have to be an expert to participate. You just have to be willing to become one along the way.

We believe that even the most complex digital signal processing algorithm can be broken down into components and functions, and understood by motivated participants.

Open source projects remove some of the barriers to sharing and learning, but not all. Advanced digital communications work is challenging. It does take commitment to work through the math and physics. We are here to help each other with that process.

We believe that this makes the community stronger and improves the quality of life of our volunteers.

## Transparency

We believe that open source is the right solution for the types of problems we are trying to solve and the types of equipment we are trying to build.

We also believe that the process of creation, not just the product, should be as open as possible.

Design reviews should happen as early and often as they are useful.

Wireless designs should be tested over the air as soon as possible, and results disclosed quickly.

Mechanical designs should be prototyped early and often and failures discussed.

Fear of failure and unnecessary risk aversion should never hold anyone back.

**International Goodwill**

**We build international goodwill and cooperation through open source research and development, primary within the amateur radio service.**

### Amateur Radio

We believe that the amateur radio service provides the best way to learn, experiment, develop, and build modern open source communications systems.

### Open Source Helps Businesses

Open source work accelerates business development. Using **and contributing back** to bodies of open source work frees commercial organizations to focus on business-differentiating technologies.