

2017 Spectrum ShaRC 2 Rules and Regulations

1. In the final competition set for April 7, 2017, the top eight qualifying teams will compete head-to-head in a single-elimination tournament. Each pair of teams that face each other in the tournament will compete in two consecutive matches, switching sets of nodes between matches to equalize any differences due to radio locations or hardware. The cumulative score of the two matches will determine the winner. If needed, a third match will be held with the set of nodes to be used by each team determined randomly, for example, by coin toss.
2. Travel support will be provided for up to two participants per team, up to a limit of \$1,000 per student participant. This support will be allocated first to the top qualifying team and will include other qualifying teams as funds permit, in order of their performance in the earlier rounds of the challenge. Current sponsorship will provide this level of support for at least the top four teams. Additional funding is being sought that would allow us to provide travel support for two participants from each of the eight qualifying teams.
3. For non-US teams, either one or two (depending on availability) travel grants will be awarded per qualifying team.
4. Any qualifying teams for which we cannot provide travel support will have the option to participate in the final competition either remotely or in person at their own expense.
5. No more than two teams per institution may qualify for the final competition.
6. If two teams from the same institution qualify for the final competition, they will face each other in an elimination match and the winner will participate in the final tournament.
7. Undergraduate-only teams will participate in an additional tournament at the final competition to determine the winner of the undergraduate-only prize. Undergraduate-only teams that qualify among the top eight teams overall will also compete for prizes in the overall competition.
8. Travel support may be available for undergraduate teams that are not among the top qualifying teams. The level of support is to be determined. As in the overall competition, undergraduate teams that do not have travel support will have the option to participate remotely.
9. You must submit code in Phase One in order to advance to Phase Two. You must submit code in Phase Two to qualify for the third and final round. Scored of late entries will be reduced.

Support:

1. Written instructions and other documentation will be provided.
2. Virginia Tech wireless researchers will be able to answer questions by email.
3. Teams will be given accounts on Virginia Tech's Cognitive Radio Network Testbed (CORNET).
4. Each team will be given working code for a software defined radio waveform with basic controller and the test and evaluation software that are used by the contest organizers.

5. The code will be for a pair of basic transceivers that are implemented using open-source software-defined radio software and can transmit and receive data over the air using the CORNET testbed or similar hardware.
6. Teams will be given baseline code as mentioned above for each stage of the competition (PHY/ MAC competitive and PHY/MAC co-existence).
7. Teams will be able to improve and test their radio software using CORNET's servers, USRP software-defined radios, FCC experimental licenses and the Cognitive Radio Test System (CRTS) software.
8. Any software bugs identified in this process can be reported using Github.

Conditions of Participation

1. Virginia Tech (VT) and its research collaborators will have a no-cost, royalty free, nonexclusive license to use the entry (code and documentation) for research. Thus, VT keeps the entries. Entries will not be shared with VT students or faculty who participate in or advise teams for the duration of Spectrum-ShaRC2.
2. VT will provide space to store files of participating teams. During the competition, VT will take reasonable measures to restrict access to each team's files only to that team's members and to Virginia Tech personnel who are not Spectrum-ShaRC 2 team participants or team advisors. . However, VT is not liable for loss or corruption of electronic files or for loss of points or competitive advantage in the challenge due to hardware or software failures, human error, or any other causes, or for unauthorized access to files by other parties and any associated detrimental effects to affected team or teams.
3. Participating teams are encouraged to make frequent backups of all of their files in case files stored on VT's CORNET servers are lost or corrupted.
4. The faculty advisor and participants in this challenge are responsible for complying with all applicable laws, regulations, and restrictions, including export restrictions and Federal Communications Commission rules, and for protection of any proprietary information or items used in the challenge. **Each team that is invited to the final competition will give a brief presentation on their work for the challenge and provide a report of up to 4,000 words plus figures and tables, to be posted on the Spectrum-ShaRC 2 website. This report must be submitted by the date specified. Teams that fail to submit reports by the deadline will not be permitted to compete in the final competition**
4. Participants who attend the final competition at Virginia Tech will attend all challenge-related events, including those hosted by challenge sponsors.
5. Any visit to Virginia Tech by a foreign national is subject to an export compliance review. Please refer to <http://www.iss.vt.edu/index.php/vt-department-host/visitor-b-visa-waiver> for more information.

WAIVER

As a participant in the 2017 Spectrum Sharing Radio Challenge (Spectrum ShaRC2), I will indemnify, hold harmless, and defend Virginia Tech (VT) and its employees and volunteers from all liability from loss, damage, or injury, or property in any manner arising out of my participating in the 2017 Spectrum-ShaRC Challenge at Virginia Tech's Blacksburg campus including without limitation all consequential damages, whether or not resulting from the negligence of VT or its agents.

SPECTRUM-SHARC STUDENT COGNITIVE RADIO DESIGN CHALLENGE VIRGINIA TECH IMAGE/VIDEO RELEASE FORM

The 2017 Spectrum-ShaRC Student Cognitive Radio Design Challenge at Virginia Tech is seeking permission to use an image/video of you. The image/video may be used on the Spectrum ShaRC Student Cognitive Radio Design Challenge website, promotional brochures, or publications to promote the Spectrum-ShaRC Challenge. The Spectrum-ShaRC Student Cognitive Radio Design Challenge @ Virginia Tech will not use the image/video in a way that damages the reputation of the subject and will not use the image/video for profit or resale. In addition, this authorization allows Virginia Tech to publish your team names, team members names, team photos, and advisors names, projects/codes & presentations to the student design contest website, and any/all may be used in promotional materials, both in print and online, to publicize and promote future contests/activities.

ADULT RELEASE AUTHORIZATION (18+ YEARS)

I hereby give the Spectrum-ShaRC Student Cognitive Radio Design Challenge at Virginia Tech permission to publish in print, electronic, or video format my likeness or image, my projects/codes/presentations for purposes of promoting the contest. I release all claims against the Spectrum-ShaRC Student Cognitive Radio Design Challenge at Virginia Tech and Virginia Tech with respect to copyright ownership and publication including any claim for compensation related to the use of the materials. I hereby hold the Virginia Tech and Spectrum-ShaRC Student Cognitive Radio Design Challenge at Virginia Tech, harmless from any claims, demands, or causes of action I or other persons acting on my behalf may have by reason of this authorization. In addition, I waive the right to inspect or approve any finished product, including written or electronic copy wherein my likeness appears.

