CSRC @ SC16

SDSU Computational Sciences Research Center Research Booth

at http://sc16.supercomputing.org (#3758)

Nov 13 - 18, 2016, Salt Lake City, Utah

The CSRC will be hosting a research booth (#202) at SC16, to be held in Salt Lake City, Utah (http://sc16.supercomputing.org). SC16 programs and activities include a strong technical meeting and associated workshops (with peer-reviewed publications), as well as an industrial exhibit where attendees can visit research, education, and vendor booths. SC is where new advances in computing technologies are showcased, advances in research are presented, educational institutions feature their programs. It is the primary annual gathering for researchers, developers, and commercial companies involved in high-end supercomputing, big data, and high speed networks. Last year, the meeting attendance at SC15 was nearly 13,000 attendees, and over 340 exhibitors, including several CSRC faculty and students in presenting several research projects or participating in student programs.

There is a tradition at SC meetings where researchers not only submit and attend technical presentations, but many of the universities and national research laboratories host research booths, which are included as part of the technical exhibits. These booths are used to promote research being conducted, arrange meetings, interact with attendees, and to disseminate information about undergraduate and graduate studies programs. Key goals of this CSRC research booth include:

- Raising awareness within the HPC community about the quality of research and education at SDSU and ncreasing awareness of High-end computing within the SDSU community.
- Introducing SDSU PhD programs to professors, attendees from other Universities who might be in a position to refer undergraduates to our program, and vendors who might support the program or Ph.D. students.
- Increasing the level of participation by CSRC, Colleges of Sciences and Engineering, and SDSU faculty, research and student communities.
- Mentoring SDSU students.
- Serving as a gathering place for SDSU alumni and for local San Diego vendors to drop by and talk about SDSU.

SC is a meeting where students are *very strongly encouraged* to participate, as either paper or poster presenters (there is a doctoral showcase program), to apply for an ACM SIGHPC travel grant (http://www.sighpc.org/resources/travel), or to apply for an award to attend as a student volunteer (SV, http://sc16.supercomputing.org/studentssc/). The SV awards are highly visible, competitive and subject to review and can be listed in a students' resume, travel expense awards (housing, food, conference fees). Participation is also a lot of fun for the students: including dinners, reception job fairs, and educational events are held just for the students. The CSRC strongly encourages student participation by actively supporting them to apply for student positions, to submit presentations, and to participate in booth activities. Each year SDSU has had several students who have won these competitive awards. This year, three SDSU students were selected: Sumukh Manjunanth, Manuel Valera, and Angel Velazco. The CRSC welcomes participation by all SDSU students, and provides support to them in several areas:

- Providing information on how to participate in the technical program such as submitting papers and posters, or participating in the doctoral research showcase.
- Helping students apply for SV awards by providing informational email announcements, guiding them throughout the application process, and providing letters of support in conjunction with supervising faculty.
- Mentoring the students on how to attend and participate in these meetings by an in-depth experience of attending and participating in an international scientific meeting;
- Giving students the opportunity to be involved at an even deeper level by spending time in our booth, where they provide information about the program and SDSU to a general public audience.

This year, the CSRC has expanded its role at SC through its participation in the annual Student Cluster Competition (see http://www.studentclustercompetition.us/). The Student Cluster Competition (SCC) was developed in 2007 to immerse undergraduate and high school students in high performance computing. Student teams design and build small clusters, with hardware and software vendor partners, learn designated scientific applications, apply optimization techniques for their chosen architectures, and compete in a non-stop, 48-hour challenge, at the SC conference, to complete a real-world scientific workload, while impressing conference attendees and interview judges with their HPC knowledge. The CSRC team, led by Dr. Mary Thomas (CS), consists of 6 undergraduate students, from CS and Engineering, and a several of faculty mentors including Drs. Jose Castillo and James Otto (CSRC), Dr. Chris Paolini (Engineering), CS (Dr. Robert Edwards, Steve Price), and Dr. Peter Blomgren (Math). The team is sponsored by a grant from the Intel Corporation, who have loaned SDSU a 320 core Kennedy pass server, and paid for all team travel expenses. For more information, see the CSRC SCC project web page at: http://www.csrc.sdsdu.edu/SC/SC16/SCC.

For questions or more information about we can help you or your students participate or to represent your program, please contact Dr. Mary Thomas (mthomas@sciences.sdsu.edu) or Dr. Jose Castillo (jcastillo@mail.sdsu.edu).

http://www.csrc.sdsu.edu