

## **Center for Parallel and Distributed Computing Curriculum Development and Educational Resources PDC Curriculum Early Adopter Grant and Summer Training Program**

The CDER Center is pleased to announce a summer program to help faculty incorporate Parallel and Distributed Computing (PDC) into courses for students in their first two years of undergraduate study.

### **Highlights:**

\$5000 grant to each participant

Grant recipients attend a one-week, in-person training workshop (July 25-29 2022) hosted by UMass, Amherst

Training includes PDC content, and educational evaluation methodology

Focus this year will be on Introductory Programming and Data Structures, courses

Recipients implement PDC course enhancements or new course(s) in academic year 2022-2023, then write and submit a paper describing their course experiment and evaluation experience

Instructors may also apply to just participate in the training, with no grant or other obligations.

Application Deadline: April 15, 2022

Notification: April 25, 2022

### **Program Overview**

The \$5000 grant is meant to be used in support of attending the workshop and curriculum development. Funds will be disbursed in two parts. \$3000 will be awarded upon completion of the training workshop. The remaining \$2000 will be disbursed after a paper, reporting on the outcomes of the curriculum development, has been submitted for publication to a workshop, conference, or journal. There is no fee for the workshop itself, and any needed materials will be provided. Breakfast and snacks will also be provided, but participants are responsible for other meals, lodging, travel, etc.

Training will be a combination of learning to use PDC tools, learning how to design and instrument an experimental course for meaningful evaluation in preparation for publication, and pedagogical approaches for engaging a diverse set of students in PDC studies.

The expectation is that grant recipients will develop experimental versions of course enhancements, or a new course or courses, to be offered in the academic year following the training. Participants commit to preparing a paper that reports the results of their efforts, based on application of the evaluation methodologies covered in the training, and submitting it for publication. The grant is also intended to help support travel to present the paper. Any courseware that is developed will be contributed to the CDER exemplars public repository so that others may benefit from these course development efforts.

### **Grant Restrictions**

The training is limited to US citizens and permanent residents, who will receive the grant as a stipend, and will be sent a 1099 miscellaneous income form at the end of the year. We regret that we are not able, under NSF rules for disbursement of participant support costs, to route the grant through the participant's institution. We also regret that we cannot support international participants. Prior participants in CDER training programs, especially from 2018 and 2020, which covered the same topics, are discouraged from applying and will be given a lower priority for acceptance than new participants.

### **COVID Protocols**

At this time, the University of Massachusetts, Amherst, requires proof of full vaccination, including a booster, for participation in on-campus events. Face masks are also required indoors. The workshop has reserved a tent to allow for outdoor seating and, in the event of inclement weather, a large conference room has been reserved to enable social distancing. All applicants must agree to abide by whatever campus health safety protocol is in effect at the time of the workshop.

## Application Process

To apply, submit a brief proposal to the CDER Center, prepared using the Google Form linked from the Easy Chair Author Instructions. The form will send an email copy of your response, which should be saved as a pdf and used as your EasyChair submission. The proposal should include:

- Applicant's name
- Academic position and tenure status
- Discipline of highest degree
- Institutional affiliation
- Address
- Email
- Phone number
- Demographic information with respect to membership in an underrepresented group
- Courses typically taught
- What you hope to gain from the training
- Description of institution (Type, size (students), department size (students, faculty))
- Programming languages used in the introductory courses
- Provide a brief description of your background in parallel and distributed computing.

For each course that will be created or enhanced with new PDC content:

- Course number and title
- Year(s) in which it is taken (Freshman, Sophomore, Junior, Senior)
- Required or elective
- Semester or quarter length (weeks)
- Number of credits
- Frequency of offering (number of terms offered per year)
- Single or multiple sections
- Taken by majors only, open to limited other majors, general service course
- Typical enrollment number
- Indication that changes are allowed (e.g., approved by curriculum committee)
- Describe changes you plan to make and list the topics from the PDC curriculum you hope to introduce as a result of the enhancement.

Apply through EasyChair using CDERSummerTraining2022:

[Easychair Site](#)

Also see <https://grid.cs.gsu.edu/~tcpp/curriculum/?q=the-early-adopter-program.html> for updates.