

CDER - Center for Parallel and Distributed Computing Curriculum Development and Educational Resources

What should every Computer Science and Computer Engineering Student know about Parallel and Distributed Computing (PDC)?

NSF/IEEE-TCPP Curriculum Initiative on Parallel and Distributed Computing - Core Topics for Undergraduates

Areas

Programming, Architecture, & Algorithms

Version 1 – 2012

- Informed 2013 ACM/IEEE CS Curricula
- 200+ early adopters or instructor trainees

New Aspects

Big Data, Energy, Distributed Computing,

Pervasive topics

Version 2-B – 2020

Current Activities

Computer Engg. oriented TCPP Curriculum
ABET's exposure to PDC – Min set of topics?

Edu* Workshops – Upcoming

EduPar'23 @ IPDPS, **May 15**, St. Petersburg,
Florida

EduHPC'23 @ SC'23, **Nov**, Denver

EduHiPC'23 @ HiPC'23, **Dec**, Goa, India

JPDC Special Issues

Keeping up with Technology: Teaching Parallel,
Distributed and High-Performance Computing
(2017, 19, 21) - **Upcoming CFP**

CDER RESOURCES

NSF CDER Instructor Training Workshop

July 31- Aug 4, 2023 @ LSU

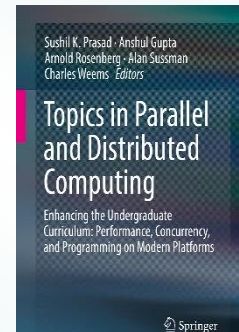
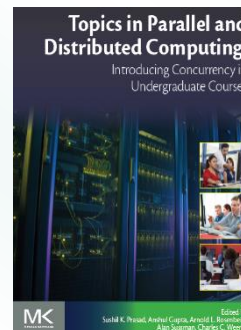
Application deadline

April 17, 2023

See back page for details

CDER Book series

Free 50K+ chapter downloads



Upcoming CFP - CDER Book 3rd Volume

On experience of Adopters - Exemplars
+ Resources on courses and topics

CDER Courseware Website

Search & Upload Course Material

CDER Heterogenous Cluster for Instructors and Students

Ask for class accounts

Multi-core, GPU, Shared/Distributed
Memory, Hadoop/Spark



Public Feedback on TCPP Curriculum & Contact
sushil.prasad@gmail.com



NSF CDER Instructor Training Workshop



Integrating Parallel & Distributed Computing

in Introductory Computer Engineering and Science Classes

July 31, 2023 to August 4, 2023
Louisiana State University Baton Rouge



Application Deadline

April 17, 2023

Notification

Starting May 1, 2023

For Instructors teaching beginning
Computer Engineering, Computer
Science Courses in US institutions.

Develop Skills and activities to help prepare
students for the future computing.

Experience Hands-on modules for PDC
integration

Network with other instructors

Opportunities to publish your work

\$5000 Stipend

\$3,000 on completion of
training, \$2,000 on
submitting course
enhancement for publication

**Must be US citizen or
permanent resident to
receive stipend**

CDER Events at SIGCSE'23

Special Session

NSF/IEEE-TCPP Curriculum on Parallel and Distributed
Computing for Undergraduates - Version II β
Big Data, Energy, and Distributed Computing

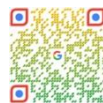
Thu 16 Mar 2023 13:45 - 15:00 at Room 716

Curriculum Feedback Surveys

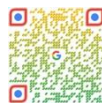
Architecture
Area



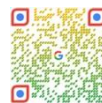
Programming
Area



Algorithms
Area



Aspects of Big Data,
Energy and Distributed



Training Workshop

Integrating Parallel
and Distributed
Computing in Early
Computing Classes

**Fri 17 Mar'23 19:00 - 22:00
at Room 715**

CDER Booth #217

Thu 16- Sat 18 Mar'23