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-β – 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
See back page for details

Application deadline April 17, 2023

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

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 IIβ
Big Data, Energy, and Distributed Computing
Thu 16 Mar 2023 13:45 - 15:00 at Room 716

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