

11th NSF/TCPP Workshop on Parallel and Distributed Computing Education (EduPar-21)

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NSF/TCPP Curriculum Initiative

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May 17, 2021 - online

Big Thanks to EduPar'21 Organizers, Authors & Speakers!

- *Program Chair, Vice-Chair, & Past Chair:*
 - **David Bunde (Knox College)**
 - **David Brown (Elmhurst University)**
 - **Tia Newhall (Swarthmore College)**
- *Peachy Assignments Chair:*
 - David Bunde (Knox College)
- *Poster Chair:*
 - Martina Barnas (Indiana University)
- *Proceedings Chair:*
 - Satish Puri, Marquette
- *Organizing Committee:*
 - Martina Barnas, Indiana University
 - Sheikh Ghafoor, Tennessee Tech
 - Anshul Gupta, IBM Research
 - Alan Sussman, U Maryland
 - Charles Weems, U Massachusetts
 - Ramachandran Vaidyanathan, LSU
- **Keynote: David Albonesi (Cornell University)**
- *Next Workshops*
 - **CDER Summer Training Workshop, Aug 9-13**
 - Stipend \$5K
 - Organized by Tennessee Tech
 - **EduHPC'21 at SC, St. Louis, Nov 14 (Sun)**
- *Sponsors:*
 - NSF, Intel, IEEE TCPP

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

<https://tcpp.cs.gsu.edu/curriculum/>

- Aspects: Energy, Distributed, Big Data, Pervasive topics
- Timeline:
 - **Version-2-beta released @ EduHPC'20**
 - **Public Feedback:**
sushil.prasad@utsa.edu
- **1:35 pm: Session on Curriculum Update**
- **Companion Activities:**
 - Exemplars
 - CE-oriented TCPP Curriculum
 - Competencies-based - knowledge, skills and attitudes
- **New:** NSF Institute Planning Grant => 5 planning workshops
 1. SC'19
 2. SIGCSE'20 - online
 3. July 27, 2020 – online
 4. Mar 26-27, 2021 - online
 5. **NSF Report Workshop – Sept'21**

NSF/TCPP Curriculum Initiative – contd.

- CDER Book series:
 - Vol 1: Topics in Parallel and Distributed Computing
 - Introducing Concurrency in Undergraduate Courses, *Morgan Kaufman*
 - Vol 2: Topics in Parallel and Distributed Computing
 - Enhancing the Undergraduate Curriculum: Performance, Concurrency, and Programming on Modern Platforms, *Springer*
 - **Free Pre-Print Version** on CDER site (44K downloads)
 - **Plan for 3rd Volume** – Experience of Adopters
 - Exemplars + Resources on courses and topics
- CDER Heterogenous Cluster
 - Multi-core, GPU, Shared/Distributed Memory, **Hadoop/Spark**
 - **Ask for class accounts**
- **Training workshops** – NSF/Intel funded