COURSE DETAIL

PARALLEL COMPUTING
Country Singapore
Host Institution National University of Singapore
Program(s) National University of Singapore
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 109
UCEAP Course Suffix
UCEAP Official Title PARALLEL COMPUTING
UCEAP Transcript Title PARALLEL COMPUTING
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course introduces the field of parallel computing with hands-on parallel programming experience on real parallel machines. The course consists of four parts: parallel computation models and parallelism, parallel architectures, parallel algorithm design and programming, and new parallel computing models. Topics include: theory of parallelism and models; shared-memory architectures; distributed-memory architectures; data parallel architectures; interconnection networks, topologies and basic of communication operations; principles of parallel algorithm design; performance and scalability of parallel programs, overview of new parallel computing models such as grid, cloud, and GPGPU. The course requires students to take prerequisites.

Language(s) of Instruction
English

Host Institution Course Number
CS3210

Host Institution Course Title
PARALLEL COMPUTING

Host Institution Course Details
https://nusmods.com/courses/CS3210/parallel-computing

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Computer Science

Course Last Reviewed
2024-2025

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