

ECE-572 – (Advanced) Parallel and Distributed Computing

Lecture 1: Introduction

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Objectives

- ◆ The objective of this course is to study the theory and practice of applied parallel/distributed computing. The overall goal is to expose students to problem solving in parallel and distributed environments and to study current research trends and technologies. The course focus this semester will be on Grid and Pervasive Computing.
- ◆ This course will focus on the current practices in parallel and distributed computing technologies including systems, architectures, programming models, languages and software tools. The first part of the course will consist of lectures covering key issues in parallel/distributed computing. The second part of the course will cover current research in Grid and Pervasive computing, and will consist of student presentations. The course will require students to research and present 2 to 3 topics and complete a final project.

Course Details

◆ Instructor:

- Manish Parashar, Associate Professor, Dept. of Electrical and Computer Engineering
Office: CoRE 504 Phone: 445-5388 Email:
parashar@ece.rutgers.edu

◆ Office Hours:

- Monday and Wednesday, 9:00 - 10:00 AM in CoRE 504

◆ Teaching Assistant:

- TBA Office: TBA Phone: TBA Office Hours: TBA

◆ Time and Place (Tentative):

- Monday and Wednesday 4:30 - 5:50 PM in CoRE Bldg. 538

◆ WWW:

- www.ece.rutgers.edu/~parashar/Classes/ece572/

Course Details

◆ Prerequisites:

- Introductory Parallel and Distributed Programming, Programming Methodology (OO Programming), Data-Structures, Computer Architecture. Familiarity with the UNIX operating system and knowledge of Java, C++, or C required. Recommended courses are:
 - » ECE 566: Introduction to Parallel and Distributed Programming
 - » CS 503/513: Data Structures
 - » ECE 563/564 Computer Architecture

◆ Principal Texts:

- Distributed Systems, Principles and Paradigms, Andrew S. Tannenbaum and Maarten van Steen, Prentice Hall, ISBN 0-13-088893-1.

◆ Grading Policy:

- Research Reports/Presentations (approx 3): 45%
- Final Project (Final Report + Demo): 45%
- Class Participation: 10%