

Syllabus

Distributed and Parallel Programming

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	Position	Assistant Professor			Major	Computer Engineering
	Group	Software and Computer Engineering				

1. Course Description

?This course introduces core concepts and principles of parallel and distributed programming paradigms such as Socket Programming, and Remote Procedure Call (RPC), Remote Method Invocation (RMI), Common Object Request Broker Architecture (CORBA) and Message Queue System. Each programming paradigm has protocols, application program interfaces (API) and toolkits. The course also covers basic distributed and parallel algorithms that run on large computer networks and multiprocessor with shared memory systems.

2. Teaching Methods

Teaching Method
Multimedia based lecture, active participation, and discussion

evaluation Method
Programming projects, Paper presentation and paper-based final exam

3. Evaluation

4. TextBooks

5. Lecture Schedule

Week	Lecture contents	Lesson type	Remark
1	Introduction to parallel and distributed systems	lecture	
2	Introduction to parallel and distributed systems	lecture	
3	Inter-process Communication	lecture	
4	Inter-process Communication	lecture	
5	Overview of distributed programming paradigms	lecture	
6	Socket Programming Paradigm	lecture	
7	Client-server programming paradigm	lecture	
8	No Midterm Exam		
9	Distributed Objects programming Paradigm: Remote Procedure Call (RPC)	lecture	
10	Distributed Objects programming Paradigm: Remote Method Invocation(RMI)	lecture	
11	Distributed Objects programming Paradigm: Remote Method Invocation(RMI)	lecture	
12	Distributed Objects programming Paradigm: Common Object Request Broker Architecture (CORBA)	lecture	
13	Parallel Programming paradigm: Message-Passing Interface Standard(MPI)	lecture	
14	Project Presentation	lecture	
15	Paper presentation	lecture	
16	Final Exam		

6. Others

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