

Course Name	Course Code	Semester	T + P	Credit	ECTS
Parallel Programming		6	3 + 0	3	4

Prerequisite Courses	None
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If the language of Code	Turkish
Course class	Technical Elective
If the Coordinator of Code	
Instructor	
Assistant Course	Nona
If the objective of Code	Parallel computers and programming is to describe the theory and develop advanced software for parallel system.
Course Learning Output	<p>The students completed the course:</p> <ol style="list-style-type: none"> 1. The development of parallel computers can and can explain how it works in modern parallel computing. 2. Parallel computers and parallel computing can classify models. 3. Evaluate parallel applications that can be implemented on different parallel computers and compare with each other. 4. Develop parallel programs in different parallel programming language. 5. Develop software for automatic vectorization and parallelization.
Contents Course	Classification of parallel computer systems, level of parallelism, parallel operations. Petri nets; identification and coordination of parallel organization of parallel processes.

Weeks	Topics
1	Parallel computers
2	Classification of parallel computer systems, level of parallelism, parallel processing
3	Petri nets; identification and coordination of the parallel combination of parallel processes
4	Parallel computers and network structures
5	Basic parallelism; SISD computers and multithread CPU 's
6	Pipeline computers; MISD computers.
7	Asynchronous parallelism
8	MIDTERM
9	Structure of MIMD system. Synchronization and communication in MIMD systems
10	MIMD programming languages and coarse grain parallel algorithms
11	The parallelism Seknro
12	The structure of the SIMD systems, communication in SIMD systems, and quizzes
13	SIMD programming languages and algorithms maSpi
14	detecting parallelism; automatic parallelization and vectorization
15	FINAL EXAM

General sufficiency
Evaluation of the students are able to develop applications and obtain information that will be important to have understand the concepts of parallel programming.
References
<ol style="list-style-type: none"> 1. Braunl Thomas (1993), Parallel Programming an introduction, Prentice Hall. 2. Kai Hwang (1993), Advanced Computer Architecture; parallelism, scalability and programmability, McGraw Hill ..
Assessment
Midterm: 40% Final exam: 60% of the project or assignment can be made and announced at the beginning of the semester evaluations.