

Maulana Abul Kalam Azad University of Technology, West Bengal*(Formerly West Bengal University of Technology)***Syllabus for B. Tech in Computer Science & Engineering**

(Applicable from the academic session 2018-2019)

Parallel and Distributed Algorithms**Code:** PEC-IT602A**Contacts:** 3L

Name of the Course:	Parallel and Distributed Algorithms		
Course Code PEC-IT602A	Semester: VI		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	Examination Scheme		
Theory:3 hrs./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: NIL	End Semester Exam:70 Marks		
Credit Points:	3		

Unit	Content	Hrs/Unit	Marks/Unit
1	UNIT-I : Basic Techniques, Parallel Computers for increase Computation speed, Parallel & Cluster Computing	8	
2	UNIT-II : Message Passing Technique- Evaluating Parallel programs and debugging, Portioning and Divide and Conquer strategies examples	8	
3	UNIT-III : Pipelining- Techniques computing platform, pipeline programs examples	8	
4.	UNIT-IV: Synchronous Computations, load balancing, distributed termination examples, programming with shared memory, shared memory multiprocessor constructs for specifying parallel list sharing data parallel programming languages and constructs, open MP	11	
5	UNIT-V : Distributed shared memory systems and programming achieving constant memory distributed shared memory programming primitives, algorithms – sorting and numerical algorithms.	9	

Text book and Reference books:

1. Parallel Programming, Barry Wilkinson, Michael Allen, Pearson Education, 2nd Edition.
2. Introduction to Parallel algorithms by Jaja from Pearson, 1992.