

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
(Formerly West Bengal University of Technology)

**Syllabus for B. Tech in CSE (Artificial Intelligence & Machine Learning)**

(Applicable from the academic session 2020-2021)

**Data Structure & Algorithm Lab**

**Code: PCC-CS391**

**Contacts: 4P**

Name of the Course:	<b>Data Structure &amp; Algorithm Lab</b>
Course Code: PCC-CS(DS)391	Semester: III
Duration: 6 months	Maximum Marks: 100
<b>Teaching Scheme:</b>	
Theory: hrs./week	Continuous Internal Assessment
Tutorial: NIL	External Assessment: 60
Practical: 4 hrs./week	Distribution of marks: 40
Credit Points:	2

<b>Laboratory Experiments:</b>	
<b>Linear Data Structure</b>	
1	Implementation of array operations
2	Stacks and Queues: adding, deleting elements Circular Queue: Adding & deleting elements
3	Merging Problem: Evaluation of expressions operations on Multiple stacks & queues:
4	Implementation of linked lists: inserting, deleting, inverting a linked list. Implementation of stacks & queues using linked lists
5	Polynomial addition, Polynomial multiplication
<b>Non Linear Data Structure</b>	
6	Recursive and Non-recursive traversal of Trees
7	Threaded binary tree traversal. AVL tree implementation
8	Application of Trees. Application of sorting and searching algorithms
9	Hash tables implementation: searching, inserting and deleting, searching & sorting techniques.

Any experiment specially designed by the college

(Detailed instructions for Laboratory Manual to be followed for further guidance)

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