Engineering plus Session Conducted for

Data Structures Using Python

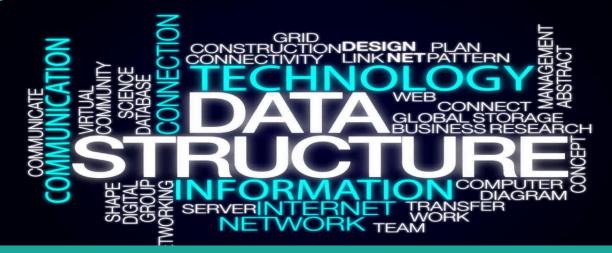
Engineering Plus is 10 to 12 Days of pure lab sessions with the duration of 1.5 to 2 hours a day. In this period of Engineering Plus session institute selected one of the core engineering component and the expert faculties have taken the lab sessions for the respective subjects. As this is not the part of university curriculum, only interested students had participated.

Data Science and Machine Learning (Phase 2)

Recent engineering plus session was held in month of <u>September, 2022</u>. This course has been divided into 4 different phases from basic to advance in order to provide complete training of the course with a specialization tactic. The second phase of this course is <u>Data Structures using PYTHON</u>, was taken by different expert faculties of the institute. This course was conducted by NLJIET with a nominal fees of 1000/ Rupees.

Total Participants	Teaching Hours per Batch	Duration
22	20-22 Hours	5th September, 2022 to 17th September, 2022

Key Highlights for Phase-2: Data Structures using PYHTON (September 2022)



Phase-II: Data Structures using Python/Java

Sr. No.	Торіс	Sub-Topic
1.	Introduction to Data Structures	Introduction to Linear Data Structure
		Introduction to Non-Linear Data Structure
		Time complexity analysis of searching and sorting algorithms
2.	Sorting	Quick Sort Implementation
		Merge Sort Implementation
3.	Stack	Infix to Postfix conversion
		Expression Evaluation
4.	Recursion	Introduction to recursion
		Basic problems on recursion
		Problems on strings using recursion
5.	Object Oriented Programming Concepts	Basic concepts of Class and Object
		Creating objects
		Getters and setters
		Constructors and related concepts
6.	Queue	Simple Queue Implementation
		Circular Queue Implementation
		Implementation of stack and queue using array
7.	Linked List	Singly linked list
		Doubly linked list
		Problems on linked list
		Implementation stack and queue using linked list
8.	Tree	Introduction to Binary Trees
		Introduction to Binary Search Trees
		Searching a node in BST
		Binary Search Tree traversals