

AISSMS
INSTITUTE OF INFORMATION
TECHNOLOGY

Department of Computer Engineering

Course Code: 210252 Course Title: Data Structure and Algorithms Year: Second Year (IV sem)

Course Objectives

- To identify a topic for graphics modeling of the real problems.
- To analyze algorithm data structure and algorithm for graphical solution of the problems.
- To understand abstract data structure to solve complex problems in various domains.
- To operate on the various abstract data.
- To build the logic to use appropriate data structure in logical and computational solutions.
- To understand various algorithmic strategies to approach the problem solution.

Course Outcomes

At the end of course students will be able to:

- CO1: Identify and articulate the complexity goals and benefits of a good building solution for real world applications.
- CO2: Apply non-linear data structure for solving problems of various domains.
- CO3: Design and identify the operations of a non-linear based abstract data type and implement them in a high-level programming language.
- CO4: Analyze the algorithmic solutions for resource requirements and optimizations.
- CO5: Use efficient indexing methods and multiway search techniques to store and retrieve data.
- CO6: Use appropriate modern tools to understand and analyze the functionalities content to the secondary storage.

Prerequisite: Flow Chart

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    graph TD
      A[Network Maintenance] --> B[Data Structure & Algorithm]
      C[Advanced Data Structures] --> B
  
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Scope of Course (Future Prospects)

- Software Design
- Artificial Intelligence
- Game Dev
- Robotics Language Processing
- Automated Verification
- Clouds
- Programming
- Hardware Computer Interaction
- Neural Network

Programme Specific Outcome (PSO)

- Students are able to identify, analyze and implement algorithms.
- Students are able to utilize their IT subject knowledge for the development of Society.
- Enhance communication and leadership skills to get good position in National and International Organizations.

CO, PO and PSO Mapping

CO	PSO					
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	H	M	M	M	M	M
CO2	M	M	M	M	M	M
CO3	M	M	M	M	M	M
CO4	M	M	M	M	M	M
CO5	M	M	M	M	M	M
CO6	M	M	M	M	M	M

L - Low M - Medium H - High

CO, PO and PSO Mapping

- Corporate Sector
- Banking Sector
- Mobile Systems
- Application Industry
- Gaming
- Entertainment Industry
- Artificial Intelligence
- Mobile Application Development
- Game Development
- Facebook, Twitter, WhatsApp etc.

Core Concept (Key Concepts)

Algorithm

Graphs, Trees, Sorting, Searching, Hashing, etc.

 **GPS Map Camera**

Pune, Maharashtra, India
55-56, Railway Officers Colony, Sangamvadi, Pune,
Maharashtra 411001, India
19/01/24 09:35 AM



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