

Topics to be covered

- Time complexity Analysis
- Asymptotic Notation
- Recurrence Relations
- Algorithmic Paradigms
- Divide and Conquer
- Greedy Strategy
- Dynamic Programming
- Introduction to NP-completeness

Interactive tutorials sessions will be conducted every day to test drive the above topics.

	9.30-10.30	11.00-12.00	2.00-3.30
Nov 29	Motivation Step Count analysis	Asymptotic Notation	Problem Session
Nov 30	Recurrence Relations	SEARCH,	Tutorial
Dec 1	SORTING (Bubble,Ins)	SORTING (Merge,Quick)	Case Studies
Dec 2	Greedy Strategy	Dynamic Programming	Problem Session
Dec 3	BFS,DFS	MST, SPATH	NPC

All lectures shall be delivered through GMeet. E-materials shall also be provided to all participants

About the course (DAA2025)

Algorithms are essential in solving large scale computational problems and there may exist more than one algorithm for a specific problem. It is natural to analyze these algorithms for correctness and efficiency in terms of time and space.

The “design” part of this course shall lay more emphasis on the techniques (paradigms) in the development of new algorithms and the “analysis” part shall focus on time/space resource constraints

This short term course has been structured to give you a flavor of design and analysis part of algorithms by considering suitable case studies

Registration

Faculty members. Rs.1000.

Students/Research Scholars - Rs.750

Industry Professionals - Rs 1500

SBllink: [State Bank Collect](https://www.onlinesbi.sbi/sbicollect/)

Following are the steps wise procedure :

<https://www.onlinesbi.sbi/sbicollect/> (SBI e collect -Educational Institute-Tamilnadu-IIITDM Educational Event-**DAA25**- Category (Faculty/Student/Industrialist)-pay

Registration Link:

<https://forms.gle/84ZAroCHJpxhcbcm6>



IIITDM
KANCHEEPURAM

**organizes a 5 day Short term course on
Design and Analysis of Algorithms**

Nov 29 to Dec 3, 2025

(HYBRID MODE)

IIITDM Kancheepuram, a centrally funded institute offers UG and PG programs in CSE/ECE/ME with the mandate of excelling in IT and IT enabled Design & Manufacturing pedagogy and research. Also, Ph.D programmes in core areas of engineering More details at www.iiitdm.ac.in

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