CS6102 Computational Thinking Lab
Course Plan

Course Co-ordinator: C.Suganthini(Q), G. Logeswari (P), T. Raghuveera (N)

Semester: I

Batch: N, P, Q

Week 1:

1. Introduction to principles of Computational thinking - Algorithmic thinking, patttern recognition, Decomposition, abstraction
2. design approaches and representation - Abstraction and translation of everyday data for use on a computer

Week 2:

Understanding Data, Finding patterns, trends and regularities in data, working with datasets, answering questions from data.

Week 3:

Applying Logical operators on Data, visualization of data

Week 4:

Logical Reasoning and Puzzles in computational thinking

Week 5:

Special type of Puzzles and Reasoning

Week 6:

Object representation, Decomposition and Abstraction (case studies and Exercises)

Week 7:

Writing algorithms step by step, Flow charts as visualizing tools for understanding algorithms

Week 8:

using tools like SCRATCH for organizing and writing algorithms

Week 9:

MIDSEM

Week 10:

Understanding searching, sorting algorithms and their complexity

Refining algorithms for clarity

Week 11:

Pattern recognition in algorithms

Week 12:

Application of computational thinking to simple real world problems

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MIDSEM: 40 Marks

CONTINUOUS ASSESSMENT: 60 (regular class activities have the following split up of marks - Observation (5 Marks)+Exercises (15)+spot Question-(5))