MAS 714 Algorithms and Theory of Computing

Objectives
- Provide an introduction to the Theory of Computing
- Introduce approaches of designing algorithms in different scenarios with analysis.

Textbooks

Syllabus
- Models of Computation
- Basic Algorithms (Sorting and Searching)
- Algorithm Design (greedy, divide and conquer, dynamic programming)
- Graph Algorithms
- Time Complexity
- NP Completeness
- Computability
- Space Complexity
- Formal Languages and Automata
- Circuits

Assessment
- Continuous Assessments: 40%
- Examination: 60%

References