

Design and Analysis of Algorithm Practical File(CIC-359)

**Submitted to Guru Gobind Singh Indraprastha University, Delhi.
In partial fulfillment of the requirement for the award of the degree of
B.Tech(Information Technology).**



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B.Tech-IT-1(Fifth Semester)**

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Department of Information Technology

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MAHARAJA SURJMAL INSTITUTE OF TECHNOLOGY, INFORMATION TECHNOLOGY DEPARTMENT

1. Vision, Mission, PEOs and PSOs

Vision of the Institute

To become one of the most admired centers of academics excellence in the field of Engineering & Technology for all-round professional development of students to enable them to meet the growing technological needs of the country.

Mission of the Institute

Developing new paradigm in imparting education in the fields of Engineering and Technology and to imbibe national values leading to student's empowerment, with a view to prepare them to meet the national and global challenges.

Vision of Department

To build a culture of innovation and research in students and make them capable to solve upcoming challenges of human life using computing.

Mission of Department

- M1.** To develop 'educational pathways' so that students can take their career towards success.
- M2.** To imbibe curiosity and support innovativeness by providing guidance to use the technology effectively.
- M3.** To inculcate management skills, integrity, honesty and human values through curricular, co-curricular and extra-curricular activities.

Program Educational Objectives

- PEO1.** Graduates of IT program are prepared to be employed by IT industries and be engaged in learning, understanding and applying new ideas.
- PEO2.** The graduates are prepared to perform effectively as individuals and team members in the workplace, growing into highly technical or project management and leadership roles.
- PEO3.** Graduates are prepared to apply basic principles of practices of computing grounded in mathematics and science for successfully completing software related projects to satisfy customer business objectives and productively engage in research.
- PEO4.** Graduates are prepared to pursue higher studies so that they can contribute to the teaching profession, research & development of information technology and other allied fields.

Program Specific Outcomes

- PSO 1:** Ability to understand the principles and working of hardware and software aspects in information technology.
- PSO 2:** Ability to explore and develop innovative ideas to solve real world problem using IT skills.

2. PROGRAM OUTCOME (POs)

PO1. Engineering Knowledge : Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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