

G H PATEL COLLEGE OF ENGINEERING AND TECHNOLOGY DEPARTMENT OF INFORMATION TECHNOLOGY

Vision

To impart quality education in Information Technology and enable learners to cope with global challenges to build professional career benefitting the sustainable growth of an individual and the society at large.

Mission

To propose state of the art educational environment equipped with cutting edge technology in the area of Information Technology.

To facilitate learners and faculties with every single opportunity of professional progression embedded in academic scenario itself which can cause enriched workforce contributing to the development of the nation.

To fulfill the noble cause of educating budding technocrats by accelerating the momentum of research and implementing innovative inputs in teaching-learning.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

- 1. To acquire knowledge of core area of engineering and suitable prerequisites through modern tools and techniques along with enhancing soft skills and continuing professional development.
- 2. To identify real life problems through proper investigation and to design and develop appropriate solution through systematic analysis which is economically feasible and in accordance with the need of industry, academia and society at large.
- 3. To exhibit the professional growth as an individual and a team as well; along with ethical responsibility and approach of lifelong learning.

PROGRAMME OUTCOMES (POS)

- 1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. 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.
- 4. 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.
- 5. 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.

- 6. 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.
- 7. 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.
- 8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. 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.
- 11. 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.
- 12. 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.

PROGRAMME SPECIFIC OBJECTIVES (PSOS)

- 1. An ability to recognize and analyse the problems being faced in the society, and design and implement the suitable solution with sound technical knowledge.
- 2. An ability to develop an efficient application using the knowledge of programming, web technology, storage, mathematics, networking, and contemporary technologies in the domain of IT.



G H PATEL COLLEGE OF ENGINEERING AND TECHNOLOGY DEPARTMENT OF INFORMATION TECHNOLOGY BRANCH: CSE (IOT)

A.Y. 2023-24, SEMESTER 4
SUBJECT CODE: 202040402
SUBJECT NAME: OPERATING SYSTEMS
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Name:	Enrolment No:	Semester:
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Sr. No	Name of the Experiment	Date	Page No.	Signature	Remarks	
1	Study of Basic commands of Linux/UNIX.					
2	Study of Advance commands and filters of Linux/UNIX.					
3	Write a shell script to generate marksheet of a student. Take 3 subjects, calculate, and display total marks, percentage and Class obtained by the student.					
4	Write a shell script to display multiplication table of given number.					
5	Write a shell script to find factorial of given number n.					
6	Write a menu driven shell script which will print the following menu and execute the given task. a. Display calendar of current month b. Display today's date and time c. Display usernames those are currently logged in the system. d. Display your name at given x, y position. e. Display your terminal number					
7	Write a shell script to read n numbers as command arguments and sort them in descending order					
8	Shell programming using filters (including grep, egrep, fgrep)					
9	Write a shell script to display all executable files, directories and zero sized files from current directory.					
10	Write a shell script to check entered string is palindrome or not.					
11	Write a shell script to validate the entered date. (eg. Date format is : dd-mm-yyyy).					
12	Write an awk program using function, which convert each word in a given text into capital.					
13	Write a program which demonstrate the use of fork, join, and exec and wait system calls.					
14	Write a C program to simulate FCFS CPU scheduling algorithm.					
	ASSIGNMENTS					
1	Assignment 1					
2	Assignment 2					