



CONTENT BEYOND SYLLABUS

Academic Year	2024-25 (ODD)
Name of the Faculty	D SARITHA
Course Name /Code	Introduction Python Programming /BPLCK105B
Semester/Section	I/J
Activity Name	Python Programs
Topic Covered	Python Programs
No. of Participants	57
Objectives/Goals	To understand Python Programs to improving their knowledge.
ICT Used	PPT
Relevant PO's	PO8, PO9, P10, PO11, PO12
Significance of Results/Outcomes	Students were able to Understand the Programs

1. Senior Citizen Check

This program checks if a person is a senior citizen based on the year of birth.

```
from datetime import date
```

```
name = input("Enter the name of the person: ")
```

```
year_of_birth = int(input("Enter the year of birth: "))
```

```
age = date.today().year - year_of_birth
```

```
if age > 60:
```

```
    print(f"{name}, aged {age} years — Senior Citizen.")
```

```
else:
```

```
    print(f"{name}, aged {age} years — Not a Senior Citizen.")
```

2. Fibonacci Sequence Generator

This program generates the first N terms of the Fibonacci sequence.

```
N = int(input("Enter the number of Fibonacci terms: "))
```

```
num1, num2 = 0, 1
```

```
count = 0
```

```
while count < N:
```

```
    print(num1, end=" ")
```

```
    num1, num2 = num2, num1 + num2
```

```
    count += 1
```

```
print()
```

3. Factorial & Binomial Coefficient (nCr)

This program calculates the factorial of two numbers and uses them to find nCr.

```
def factorial(n):
```

```
    return 1 if n == 0 else n * factorial(n - 1)
```

```
n = int(input("Enter value of N: "))
```

```
r = int(input("Enter value of R (0 ≤ R ≤ N): "))
```

```
if 0 <= r <= n:
```

```
    nCr = factorial(n) // (factorial(r) * factorial(n - r))
```

```
    print(f"{n}C{r} = {nCr}")
```

```
else:
```

```
print("Invalid input: ensure  $0 \leq R \leq N$ .")
```

4. Circle: Area and Circumference

This program calculates the area and circumference of a circle based on radius.

```
import math
```

```
radius = float(input("Enter the radius of the circle: "))
```

```
area = math.pi * radius * radius
```

```
circumference = 2 * math.pi * radius
```

```
print(f"Area = {area:.2f}")
```

```
print(f"Circumference = {circumference:.2f}")
```

5. Armstrong Number Check (3-digit)

This program checks if a 3-digit number is an Armstrong number.

```
num = int(input("Enter a number: "))
```

```
digits = str(num)
```

```
sum_of_cubes = sum(int(d)**3 for d in digits)
```

```
if sum_of_cubes == num:
```

```
    print(f"{num} is an Armstrong number.")
```

```
else:
```

```
    print(f"{num} is not an Armstrong number.")
```



Signature of the Course In-charge



Signature of HOD

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DEPARTMENT OF COMPUTER AND COMMUNICATION
TEACHING AND LEARNING
CONTENT BEYOND SYLLABUS

Academic Year	2024-2025												
Name of the Faculty	T. NAGA JYOTHI												
Course Name /Code	BCS303												
Semester/Section	III rd/CCE												
Activity Name	Course on operating system in Infosys Springboard , Case Study												
Topic Covered	Operating system concepts												
Date	17/12/2024												
No. of Participants	1												
Objectives/Goals	Understanding the concepts of operating systems												
ICT Used	PPTS												
Appropriate Method/Instructional materials/Exam Questions													
<p align="center">OPERATING SYSTEM CONCEPTS BY GALVIN</p> <p>Concepts covered:</p> <ol style="list-style-type: none"> 1.Functions of OS 2.Services of OS 3.Memory Mangement 4.Virtual Memory 5.Various scheduling alforithms <p>COURSE OUTCOMES:</p> <p>CO1:Explain the structure and functionality of operating system</p> <p>CO2:Apply appropriate CPU scheduling algorithms for the given problem.</p> <p>CO3:Apply the various techniques for process synchronization and deadlock handling.</p> <p>CO4:Apply the various techniques for memory management</p> <p>CO5:Illustrate file and secondary storage management strategies and the need for information protection mechanisms.</p> <table border="1"> <tr> <td>PO1: Science and engineering Knowledge</td> <td>PO7:Environment and Sustainability</td> </tr> <tr> <td>PO2: Problem Analysis</td> <td>PO8:Ethics</td> </tr> <tr> <td>PO3: Design & Development</td> <td>PO9:Individual & Team Work</td> </tr> <tr> <td>PO4:Investigations of Complex Problems</td> <td>PO10: Communication</td> </tr> <tr> <td>PO5: Modern Tool Usage</td> <td>PO11:Project Management & Finance</td> </tr> <tr> <td>PO6: Engineer & Society</td> <td>PO12:Life long Learning</td> </tr> </table>		PO1: Science and engineering Knowledge	PO7: Environment and Sustainability	PO2: Problem Analysis	PO8: Ethics	PO3: Design & Development	PO9: Individual & Team Work	PO4: Investigations of Complex Problems	PO10: Communication	PO5: Modern Tool Usage	PO11: Project Management & Finance	PO6: Engineer & Society	PO12: Life long Learning
PO1: Science and engineering Knowledge	PO7: Environment and Sustainability												
PO2: Problem Analysis	PO8: Ethics												
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PO5: Modern Tool Usage	PO11: Project Management & Finance												
PO6: Engineer & Society	PO12: Life long Learning												
<p>Mapped CO's:CO1</p> <p>Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12</p>	<p>CO1: Structure and functionality of Operating system</p> <p>PO:PO1-Science and Engineering knowledge</p> <p>PO2-Problem Analysis</p> <p>PO3-Design & Development</p> <p>PO4-Investigation of complex problem solving</p> <p>PO8-Ethics</p> <p>PO9-Individual &Team Work</p> <p>PO10-Communication</p>												

Mapped CO's:CO2 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12	CO2:CPU scheduling algorithms PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication
Mapped CO's:CO3 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12	CO3:Various techniques for process synchronization and deadlock handling PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication
Mapped CO's:CO4 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12	CO4:Various techniques for Memory management PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication
Mapped CO's:CO5 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12	CO5: File system & its Implementation PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning
Significance of Results/Outcomes	<ul style="list-style-type: none"> Understanding the Overall functions of operating system
Reflective Critique	Course on Operating system in Infosys springboard brings confidence on subject
Proof of course certificates has been maintained	



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DEPARTMENT OF COMPUTER & COMMUNICATION ENGINEERING

TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS REPORT

Academic Year	2024-2025
Name of the Faculty	MAMATHA N
Course Name /Code	Mathematics for Computer & Communication Engineering / BCM301
Semester/Section	III
Activity Name	Mini project
Topic Covered	All Modules
Date	16/10/2024
No. of Participants	64
Objectives/Goals	To get the knowledge and awareness of mathematics in Computing through Algorithms & Machine learning Techniques.
ICT Used	LCD
Appropriate Method/Instructional materials/Exam Questions	The Project was conducted from 16 th October 2024 to 30 th October 2024. This activity was conducted to get the knowledge of mathematics in the field of Computing. Students learnt the organization, Dataset Collection, Algorithms and various machine learning techniques. Activity was Conducted and reported by the students.
Relevant PO's	1,2,5,9 and 12
Significance of Results/Outcomes	Students were able to get knowledge of using Mathematics in Algorithms & Machine learning.
Reflective Critique	The main goal of this activity to create an awareness of various Algorithms and Techniques involved in Algorithms & Machine learning.

Proof : Marks sheet attached.


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DEPARTMENT OF COMPUTER AND COMMUNICATION ENGINEERING 2024-2025

Branch : CCE
Course Name : BE
Semester/Section : III/A

Course Code : BCM301

Content Beyond Syllabus

ASSIGNMENT TYPE : MINI PROJECT

Marks : 15

Objective : Title of the topic to be Presented mini project presentation

POs Covered : 4, 5

Sl. No	Batch No	USN	Name	Assignment topic	Marks
1	1	1KS23CM011	HAMSA S	Mathematical modeling in Curve fitting	14
2		1KS23CM017	KHUSHI K		14
3		1KS23CM050	SUPRIYA		14
4		1KS23CM055	VAISHNAVI S		14
5	2	1KS23CM018	KRUTHIKA S R	Regression	14
6		1KS23CM021	MAANYA ARUN		14
7		1KS23CM035	PREKSHA G		14
8		1KS23CM037	PRUTHVI DEVI V		14
9	3	1KS23CM004	BHOOMIKA L M	Co-efficient of Correlation	14
10		1KS23CM020	LAVANYA SHETTY		13
11		1KS23CM033	PALLAVI S		13
12		1KS23CM036	PRIYANKA H RAJ		13
13	4	1KS23CM025	MANYA D	Fourier series on sound	8
14		1KS23CM028	MOUNISHA H K		14
15		1KS23CM044	SNEHA SHIVANAND HALLIKERI		14
16		1KS23CM054	THRISHA K S		5
17		1KS24CM400	BHOOMIKA S		14
18	5	1KS23CM001	AKASH LAXMAN BAJANTRI	Curve fitting	15

					15
19		1KS23CM031	NIRANJAN P Y		15
20		1KS23CM015	K R CHARAN		15
21		1KS23CM010	DITENDRASAI G		15
22	6	1KS24CM402	SUDHULAKUNTA AJAY KUMAR		
23		1KS23CM013	JAGADESH	Probability in AI & ML.	9
24		1KS23CM006	CHETAN CHANNAVEER		9
25	7	1KS23CM034	PRASHANTH D S		9
26		1KS23CM058	VENKATESH B V		9
27		1KS23CM045	SUBHAM BANERJEE		9
28		1KS23CM023	MAHALAKSHMI N		Bell curve real life applications.
29	8	1KS23CM024	MANASA G K	14	
30		1KS23CM056	VARSHA RANGANATHA	14	
31		1KS23CM014	JNANESHWARI D S	Joint probabailty distribution in weather prediction.	12
32	9	1KS23CM019	LAVANYA G C		12
33		1KS23CM022	MADHU MITHA S		12
34		1KS23CM030	NAMRATHA BHARGAVA S		12
35		1KS23CM041	S R DARSHAN	Predicting the unpredictable weather using Markov Chain.	14
36	10	1KS23CM043	SHUBAN S		14
37		1KS23CM046	SUJAN S		14
38		1KS23CM048	SUKETH S M		14
39		1KS23CM005	CHANDANA A ATHREYESA	Binomial Distribution	11
40	11	1KS23CM016	K.SHRIDEVI B ADIGA		5
41		1KS23CM057	VATHSALA		11
42		1KS23CM060	VISHNU PRIYA G S		11
43		1KS22CM004	ARPITHA	Applications of probability.	13
44	12	1KS22CM029	MANUSHREE J		13
45		1KS23CM039	RAKSHA K		13
46		1KS23CM040	REETA GRACY		13
47		1KS23CM052	TEJAS L	Prime numbers	11
48	13	1KS23CM059	VIKAS M		11
49		1KS23CM047	SUJITH S		11
50		1KS23CM007	D YASHAS		11

51		1KS23CM032	NITHINKUMAR T S		11
52	14	1KS23CM042	SAGAR RAJA SUBRAMANYA KOUSHIK	Poisson Distribution	11
53		1KS23CM053	TEJAS R C		11
54		1KS23CM051	SYED ISMAIL		11
55		1KS23CM008	DEEPAK R PISE		Joint probability distribution & its applications.
56	1KS23CM012	HRISHIKESH Y	14		
57	1KS23CM026	MOHAMMAD ATIYAB MANAWWAR	14		
58	1KS23CM029	MRINAL DESHPANDE	14		
59	1KS23CM038	PRUTHVIK M	14		
60	16	1KS23CM049	SUNAAD S BHATT	Fourier Series.	11
61		1KS23CM009	DHANANJANEYA S S		11
62		1KS23CM027	MOHAN KUMAR K S		11

Mamatha. L
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DEPARTMENT OF COMPUTER AND COMMUNICATION ENGINEERING
TEACHING AND LEARNING
CONTENT BEYOND SYLLABUS REPORT

Academic Year	2024-2025 (ODD)
Name of the Faculty	SHASHIKALA H.C.
Course Name/Code	DATA STRUCTURE AND ITS APPLICATION / BCS304
Semester/Section	III
Activity Name	QUIZ
Topic Covered	DATA STRUCTURE AND ITS APPLICATION (All Modules)
Date	14/12/2024
No. of Participants	64
Objectives/Goals	<ul style="list-style-type: none">● To improve Engineering knowledge in Research and IPR● To improve the self-learning skills of students● To face GATE and placement
ICT Used	OFFLINE
Appropriate Method/Instructional materials/Exam Questions <ul style="list-style-type: none">● Prior information was given to students● Students are asked to answer the quiz and only one response was given	
Relevant PO'S	PO1, PO2, PO4, PO6, PO8, PO10, PO12
Significance of outcomes	Students able to Improve their knowledge in DATA STRUCTURE AND ITS APPLICATION
Reflective Critique	The activity improved the learning, Engineering knowledge in DATA STRUCTURE AND ITS APPLICATION
Proof	HARD COPY

Shashikala H.C.

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K. S. INSTITUTE OF TECHNOLOGY, BENGALURU - 560109
DEPARTMENT OF COMPUTER & COMMUNICATION ENGINEERING

Branch : DEPARTMENT OF COMPUTER & COMMUNICATION
ENGINEERING
Course Name : DATA STRUCTURE AND ITS APPLICATION / Course Code : BCS304
Semester/Section : III

Content Beyond Syllabus

Activity type : Quiz Marks : 15
Objective : 1. To improve the learning, Engineering knowledge in DSA
2. To improve the self-learning skills of students
3. To face GATE and placement

POs Covered : PO 9, PO10

SL. NO.	USN	NAME	MARKS (15)
1	1KS22CM004	ARPITHA	12
2	1KS22CM029	MANUSHREE J	10
3	1KS23CM001	AKASH LAXMAN BAJANTRI	10
4	1KS23CM003	BHIMASHANKAR	7
5	1KS23CM004	BHOOMIKA L M	12
6	1KS23CM005	CHANDANA A ATHREYESA	13
7	1KS23CM006	CHETAN CHANNAVEER	14
8	1KS23CM007	D YASHAS	10
9	1KS23CM008	DEEPAK R PISE	5
10	1KS23CM009	DHANANJANEYA S S	10
11	1KS23CM010	DITENDRASAI G	14
12	1KS23CM011	HAMSA S	10
13	1KS23CM012	HRISHIKESH Y	11
14	1KS23CM013	JAGADESH	12
15	1KS23CM014	JNANESHWARI D S	9
16	1KS23CM015	K R CHARAN	11
17	1KS23CM016	K. SHRIDEVI B. ADIGA	12
18	1KS23CM017	KHUSHI K	15
19	1KS23CM018	KRUTHIKA S R	15
20	1KS23CM019	LAVANYA G C	12
21	1KS23CM020	LAVANYA SHETTY	12
22	1KS23CM021	MAANYA ARUN	14

23	1KS23CM022	MADHU MITHA S	13
24	1KS23CM023	MAHALAKSHMI N	13
25	1KS23CM024	MANASA G K	14
26	1KS23CM025	MANYA D	12
27	1KS23CM026	MOHAMMAD ATIYAB MANAWWAR	9
28	1KS23CM027	MOHAN KUMAR K S	8
29	1KS23CM029	MRINAL DESHPANDE	15
30	1KS23CM030	NAMRATHA BHARGAVA S	14
31	1KS23CM031	NIRANJAN P Y	8
32	1KS23CM032	NITHINKUMAR T S	9
33	1KS23CM033	PALLAVI S	12
34	1KS23CM034	PRASHANTH D S	14
35	1KS23CM035	PREKSHA G	15
36	1KS23CM036	PRIYANKA H RAJ	15
37	1KS23CM037	PRUTHVI DEVI V	15
38	1KS23CM038	PRUTHVIK M	12
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43	1KS23CM043	SHUBAN S	15
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48	1KS23CM048	SUKETH S M	13
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52	1KS23CM052	TEJAS L	14
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54	1KS23CM054	THRISHA K S	10
55	1KS23CM055	VAISHNAVI S	10
56	1KS23CM056	VARSHA RANGANATHA	12
57	1KS23CM057	VATHSALA	12
58	1KS23CM058	VENKATESH B V	7
59	1KS23CM059	VIKAS M	7
60	1KS23CM060	VISHNU PRIYA G S	9
61	1KS24CM402	SUDHULAKUNTA AJAY KUMAR	10
62	1KS24CM401	DORABDARUWALA OM NEVILKUMAR	
63	1KS24CM400	BHOOMIKA S	12
64	1KS23CM028	MOUNISHA H K	8

Appropriate Method/Instructional materials/Exam Questions

DATA STRUCTURE CONCEPTS BY SARTAAJ SAHANI AND GATE PAPERS
TEST questions:

Module-1			
1	<p>What is a data structure? a) A programming language c) A way to store and organize data</p>	<p>b) A collection of algorithms d) A type of computer hardware</p>	CO1 1
2	<p>Which matrix has most of the elements (not all) as Zero? a) Identity Matrix c) Sparse Matrix</p>	<p>b) Unit Matrix d) Zero Matrix</p>	CO1 1
3	<p>Consider the following statements: (i) First-in-first out types of computations are efficiently supported by STACKS. (ii) Implementing LISTS on linked lists is more efficient than implementing LISTS on an array for almost all the basic LIST operations. (iii) Implementing QUEUES on a circular array is more efficient than implementing QUEUES on a linear array with two indices. (iv) Last-in-first-out type of computations are efficiently supported by QUEUES.</p>	<p>a) ii and iii are true. c). iii and iv are true</p>	CO1 1
Module-2			
4	<p>Circular Queue is full only when a). Front= MAX-1 and Rear= MAX-1 c). Front= MAX-1 and Rear= 0</p>	<p>b). Front= 0 and Rear= MAX-1 d) Front= 0 and Rear= 0</p>	CO2 1
5	<p>Advantages of linked list representation of binary trees over arrays? a) dynamic size c) ease in randomly accessing a node</p>	<p>b) ease of insertion/deletion d) both dynamic size and ease in insertion/deletion</p>	CO2 1
6	<p>Which of the following piece of code has the functionality of counting the number of elements in the list?</p>	<p>a) <code>public int length(Node head) { int size = 0; Node cur = head; while(cur!=null) { size++; cur = cur.getNext(); } return size; }</code></p> <p>b) <code>public int length(Node head) { int size = 0; Node cur = head; while(cur!=null) { cur = cur.getNext(); size++; } return size; }</code></p> <p>c) <code>public int length(Node head) { int size = 0; Node cur = head; while(cur!=null) { size++; cur = cur.getNext(); } }</code></p> <p>d) <code>public int length(Node head) { int size = 0; Node cur = head; while(cur!=null) { size++; cur = cur.getNext().getNext(); } return size; }</code></p>	CO2 1

Module-3			
7	What is a memory efficient double linked list? a) Each node has only one pointer to traverse the list back and forth b) The list has breakpoints for faster traversal c) An auxiliary singly linked list acts as a helper list to traverse through the doubly linked list d) A doubly linked list that uses bitwise AND operator for storing addresses	CO3	1
8	Which of the following traversing algorithm is not used to traverse in a tree? a) Post order b) Pre order c) Post order d) Randomized	CO3	1
9	The postorder traversal of a binary tree is 8,9,6,7,4,5,2,3,1. The inorder traversal of the same tree is 8,6,9,4,7,2,5,1,3. The height of a tree is the length of the longest path from the root to any leaf. Then the height of the binary tree is ____ a).5 b).4 c). 10 d). 1.	CO3	1
Module-4			
10	Level order traversal of a tree is formed with the help of a) breadth first search b) depth first search c) dijkstra's algorithm d) prims algorithm	CO4	1
11	The number of vertices originates at vertex U is called a). Degree b) In degree c). Out degree d) Source	CO4	1
12	Operations on Disjoint Set Data Structures: a) Find b) Union c).Both a and b d).None of the above	CO4	1
Module-5			
13	A hash table contains 10 buckets and uses linear probing to resolve collisions. The key values are integers, and the hash function used is key % 10. If the values 43, 165, 62, 123, 142 are inserted in the table, in what location would the key value 142 be inserted? a). 2 b). 3 c). 4 d). 6	CO5	1
14	What is the advantage of a hash table as a data structure? a) easy to implement b) faster access of data c) exhibit good locality of reference d) very efficient for less number of entries	CO5	1
15	The term Optimal means in OBST. a). Cheapest b) Fastest c) Shorted d) All of the above	CO5	1

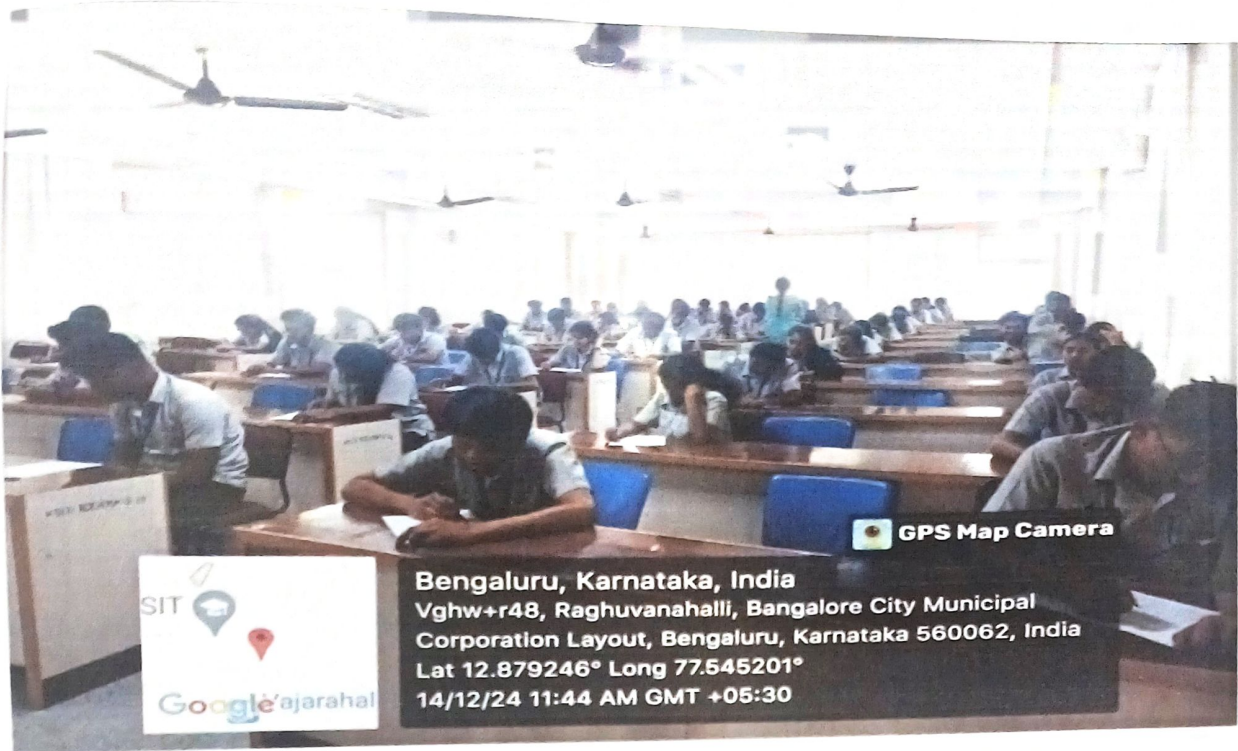
COURSE OUTCOMES:

- CO 1. To explain fundamentals of data structures and their applications.
- CO 2. To illustrate representation of Different data structures such as Stack, Queues, Linked Lists, Trees and Graphs.
- CO 3. To Design and Develop Solutions to problems using Linear Data Structures
- CO 4. To discuss applications of Nonlinear Data Structures in problem solving.
- CO 5. To introduce advanced Data structure concepts such as Hashing and Optimal Binary Search Trees

PO1: Science and engineering Knowledge PO2: Problem Analysis PO3: Design & Development PO4: Investigations of Complex Problems PO5: Modern Tool Usage PO6: Engineer & Society	PO7: Environment and Sustainability PO8: Ethics PO9: Individual & Team Work PO10: Communication PO11: Project Management & Finance PO12: Life long Learning
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<p>Mapped CO's: CO1 Relevant PO's: PO1 –PO4,PO9,PO10</p>	<p>CO1: Fundamentals of data structures and their applications PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning</p>
<p>Mapped CO's: CO2 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12</p>	<p>CO2: Representation of Stack, Queues, Linked Lists, Trees and Graphs PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning</p>
<p>Mapped CO's: CO3 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12</p>	<p>CO3: Design and Develop Solutions to problems using Linear Data Structures' PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning</p>
<p>Mapped CO's: CO4 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12</p>	<p>CO4: To discuss applications of Nonlinear Data Structures in problem solving. PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning</p>
<p>Mapped CO's: CO5 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12</p>	<p>CO5: advanced Data structure concepts such as Hashing and Optimal Binary Search Trees. PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning</p>

Students are writing the test



Bengaluru, Karnataka, India
Vghw+r48, Raghuvanahalli, Bangalore City Municipal
Corporation Layout, Bengaluru, Karnataka 560062, India
Lat 12.879246° Long 77.545201°
14/12/24 11:44 AM GMT +05:30



Bengaluru, Karnataka, India
303, Layout, Raghuvanahalli, Bangalore City Municipal
Corporation Layout, Bengaluru, Karnataka 560062, India
Lat 12.879089° Long 77.54506°
14/12/24 11:44 AM GMT +05:30

Shreecel H. C.

Signature of Course In charge

[Handwritten Signature]

Signature of HOD

Head of the Department
Dept. of Computers and Communication Engg.
K. S. Institute of Technology
Bengaluru - 560 109.



Content beyond Syllabus

Academic Year	2024-2025 (ODD)
Name of the Faculty	SHASHIKALA H.C.
Course Name/Code	DATA COMMUNICATION / BCM502
Semester/Section	V
Activity Name	PRESENTAION
Topic Covered	<ul style="list-style-type: none">● To study about different physical equipment's used for networking.● To study different internetworking devices in a computer network.● To assign IP address to the PC connected to the internet.● Creating a Network topology using CISCO packet tracer software
Date	9/12/2024 and 23/12/2024
No. of Participants	59
Objectives/Goals	<ul style="list-style-type: none">● To improve Engineering knowledge in DATA COMMUNICATION● To improve the self-learning skills of students
ICT Used	PPT
Appropriate Method/Instructional materials/Exam Questions	
Activity Based Learning (Suggested Activities in Class)/ Practical Based learning Students will be informed to give presentation/demo on any of the topic given below. (10 marks)	
<ul style="list-style-type: none">● Prior information was given to students● Students are given presentation	
Relevant PO'S	PO1, PO2, PO4, PO6, PO8, PO10, PO12
Significance of outcomes	Students able to Improve their knowledge in DATA COMMUNICATION
Reflective Critique	The activity improved the learning, Engineering knowledge in DATA COMMUNICATION
Proof	Report

Shashikala H.C.
Signature of Course In charge

[Signature]
Signature of HOD
Head of the Department
Dept. of Computers and Communication Engg.
K. S. Institute of Technology
Bengaluru - 560 109.



K. S. INSTITUTE OF TECHNOLOGY, BENGALURU - 560109
DEPARTMENT OF COMPUTER & COMMUNICATION ENGINEERING

Branch : DEPARTMENT OF COMPUTER & COMMUNICATION ENGINEERING
Course Name : DATA COMMUNICATION **Course Code** : BCM502
Semester/Section : V

Content Beyond Syllabus

Activity type : Presentation **Marks** : 10
Objective : 1. To improve the learning, Engineering knowledge in DC
2. To improve the self-learning skills of students

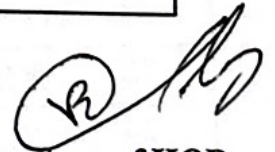
POs Covered : PO 9, PO10

Sl.No	USN	Student Name	Marks-10
1	1KS22CM001	ADITHYA ARUN SATHVIK	10
2	1KS22CM002	ANITHA P C	10
3	1KS22CM003	ANUSH S	10
4	1KS22CM005	ARSHIYA J	10
5	1KS22CM006	ARUN L JADAVA LAMANI	10
6	1KS22CM007	B S AISHWARYA	10
7	1KS22CM008	B S BRUNDHA	10
8	1KS22CM010	BASAVARAJ PATIL	4
9	1KS22CM011	BRINDA S	10
10	1KS22CM012	DEEKSHA H R	10
11	1KS22CM013	DEEKSHA S	10
12	1KS22CM014	DEEPIKA G	10
13	1KS22CM015	DINESH SHARMA B	10
14	1KS22CM016	DISHA A	10
15	1KS22CM017	GANGOTHRI P	10
16	1KS22CM018	H R CHANDANA	10
17	1KS22CM019	HARIJA ANWAR	10
18	1KS22CM020	HAMEED VAJIR TERDALE	4
19	1KS22CM021	HEMANTH B R	10
20	1KS22CM022	HEMANTH K E	10
21	1KS22CM023	K R SHREYA	10
22	1KS22CM024	KARTHIK R JOSHI	10
23	1KS22CM025	KIRAN D	6
24	1KS22CM026	KUNDANKUMAR S	10
25	1KS22CM028	MANJUNATH K	10
26	1KS22CM030	MOHAMMED FAHIM R	10
27	1KS22CM031	NARASIMHA M K	10
28	1KS22CM032	NEELANJALI C	10
29	1KS22CM033	NIMISHA S L	10
30	1KS22CM034	NISHAL R	4
31	1KS22CM035	NITHYA V	10
32	1KS22CM036	PAVAN R	10

33	1KS22CM037	PAVAN UMESH KULKARNI	10
34	1KS22CM038	PRAJWAL M P	10
35	1KS22CM039	PRUTHVIRAJ N	10
36	1KS22CM040	PUNITH K M	10
37	1KS22CM041	RAKSHITH M	10
38	1KS22CM042	SAI SMRITI M	10
39	1KS22CM043	SAKSHI SINGH	10
40	1KS22CM044	SATHVIK R P	7
41	1KS22CM045	SHREEDHANYA M S	10
42	1KS22CM046	SHREEPADA C	10
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46	1KS22CM050	SREYASREE R JOSHI	10
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48	1KS22CM052	SRINIVASA R	10
49	1KS22CM053	SUHAS PRABHAKAR CHINDI	10
50	1KS22CM054	SUJAN S P	10
51	1KS22CM055	SUJITH MANNE	10
52	1KS22CM057	UMME HANI	10
53	1KS22CM058	Y ISHITHA	9
54	1KS22CM059	YERABOTHULA CHAITANYA	10
55	1KS22CM060	YERRABOTHULA KIRAN	10
56	1KS23CM400	CHANDRASHEKHARA SWAMY	10
57	1KS23CM401	CHETAN S KORADAKERI	10
58	1KS23CM402	PRANATHI SAI M	10
59	1KS23CM403	RAKESH KUMAR R	10

Sreedh H-C

Signature of Course In charge



Signature of HOD

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K. S. Institute of Technology
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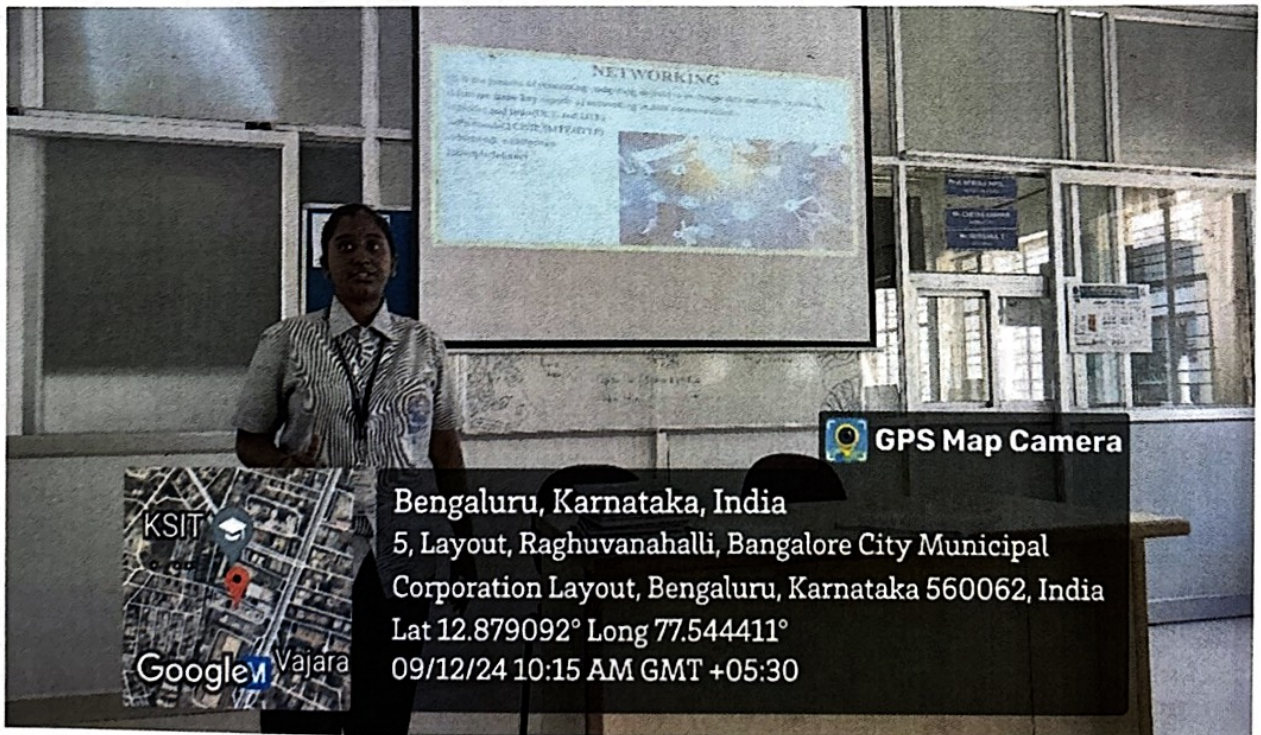


DC-Presentation topic (CCE 2024-2025)

Appropriate Method/Instructional materials Textbook: 1. Behrouz A. Forouzan, Data Communications and Networking, 5th Edition, Tata McGraw-Hill,2013. Activity Based Learning (Suggested Activities in Class)/ Practical Based learning Students will be informed to give presentation/demo on any of the topic given below. (10 marks) <ul style="list-style-type: none">• To study about different physical equipment's used for networking.• To study different internetworking devices in a computer network.• To assign IP address to the PC connected to the internet. • Creating a Network topology using CISCO packet tracer software.	
Mapped CO's:CO1 Relevant PO's:PO1- PO4,PO9,PO10	CO1: To discuss the fundamental elements of data Communication and the principles of protocol layering and functions of Network models. PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning
Mapped CO's: CO2 Relevant PO's:PO1- PO4,PO8,PO9,PO10,PO12	CO2: Demonstrate the conversion of signals from Digital to Digital, Analog to Digital & Digital to Analog conversion, bandwidth utilization techniques PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning

<p>Mapped CO's: CO3 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12</p>	<p>CO3: Identify the Transmission media, Switching and the Error detection and correction techniques. PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning</p>
<p>Mapped CO's: CO4 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12</p>	<p>CCO4: Simulate the Flow control & Error control., DLC services and the operation of Media Access protocols like Random, Controlled and Channelization. PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning</p>
<p>Mapped CO's: CO5 Relevant PO's: PO1-PO4,PO8,PO9,PO10,PO12</p>	<p>CO5: Choose the Wired LANs Ethernet and Wireless LANs, IEEE 802.11 Project, Bluetooth, WiMAX, Cellular Telephony PO:PO1-Science and Engineering knowledge PO2-Problem Analysis PO3-Design & Development PO4-Investigation of complex problem solving PO8-Ethics PO9-Individual &Team Work PO10-Communication PO12-Lifelong learning</p>
<p>Significance of Results/Outcomes</p>	<ol style="list-style-type: none"> 1). To understand the physical equipment's, internetworking devices used for networking. 2). To assign IP address to the PC connected to the internet. 3). Creating a Network topology using CISCO packet tracer software. 4). Understanding the subject for competitive exams like Gate and placement.
<p>Reflective Critique</p>	<p>This syllabus encouraged the students to gain advanced knowledge about the subject.</p>

Students' presentation



Shreele H C.

Signature of Course In charge

Signature of HOD

Head of the Department
Dept. of Computers and Communication Engg.
K. S. Institute of Technology
Bengaluru - 560 109.



Content Beyond Syllabus

Academic Year	2024-2025 (ODD)
Name of the Faculty	Dr. Shobha G
Course Name/Code	Research methodology & IPR / BRMK557
Semester/Section	V
Activity Name	QUIZ
Topic Covered	Related to Research methodology & IPR(All Modules)
Date	
No. of Participants	63
Objectives/Goals	<ul style="list-style-type: none">• To improve Engineering knowledge in Research and IPR• To improve the self-learning skills of students
ICT Used	Google form
Appropriate Method/Instructional materials/Exam Questions <ul style="list-style-type: none">• Prior information was given to students• Students are asked to answer the quiz and only one response was given	
Relevant PO'S	PO1, PO2, PO4, PO6, PO8, PO10, PO12
Significance of outcomes	Students able to Improve their knowledge in Research and IPR
Reflective Critique	The activity improved the learning, Engineering knowledge in Research and IPR
Proof	Google form

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RM-Quiz (IOT, CCE 2024-2025)

- 1. What is the recommended approach for students to undertake research?**
 - Students should focus only on deepening their knowledge within their specific undergraduate discipline, as it will be sufficient to solve most research problems.
 - Students should have an open mind and be prepared to work on interdisciplinary problems, as many real-world problems do not fit within narrow vertical silos of a single field.
 - Students should not prioritize enjoying the research journey.
 - Students should focus only on well-defined fields to get publications.
- 2. What is the primary objective of interdisciplinary research?**
 - To complicate research problems.
 - **To incorporate a comprehensive methodology by merging two or more fields.**
 - To provide an introduction to traditional research methodology.
 - To diminish the focus on a single subject within the research domain
- 3. Which of the following is a primary requirement when starting research?**
 - Creating a research design
 - **Establishing a research question**
 - Determining the data analysis procedure
 - Writing thesis
- 4. Which of the following options best defines research?**
 - Repeating a search process multiple times.
 - Discovering solutions to various problems.
 - **Conducting systematic scientific investigations to uncover the truth about a specific problem.**
 - None of the above.
- 5. What is the rationale behind discouraging manipulation in research?**
 - It distorts the validity and reliability of the findings.
 - It undermines the integrity and credibility of the researcher.
 - It hampers the progress and advancement of knowledge.
 - **All of the above.**
- 6. One form of intrinsic motivation is**
 - Money
 - Fame
 - Awards

- Satisfaction of having solved the problem
7. A successful researcher is one whose work recognized as important by
- His school teacher
 - General public
 - International peer group
 - College students
8. You have read a white paper published by an organization in their website and would like to refer to it in a journal article you are writing. Which of the following describes an acceptable way to refer?
- Author, title of the article, organization
 - Author, title of the article, website containing the article, last accessed date
 - Title of the article, organization, website
 - Author, title of the article, website of the organization
9. Which of the following bibliographic details is necessary to retrieve all other details of a digitally published article?
- ISSN
 - ISBN
 - DOI
 - URL
10. Which of the following indices is considered as a measure of the impact of a particular article in its area of specialization?
- Number of likes
 - Number of views
 - Number of downloads
 - Number of articles referring to it
11. Which of the following is NOT a remedy for infringement of Intellectual Property?
- Specific Performance
 - Accounts for Profits
 - Injunction
 - Damages
12. Sheldon has been granted a patent for his gyroscope idea. Having a patent, he is entitled to which of these rights?
- Right of excludability
 - Right of commercial exploitation
 - Right to file a suit in case of infringement
 - All of the above
13. Which of the following is NOT a type of Intellectual Property Right?
- Patents
 - Trade Marks

- Torts
- Copyright

14. What is the duration of copyright protection James can seek for one of his non-fiction book in India?

- Non-fiction works cannot be protected by copyright
- Only during the lifetime of James
- **Lifetime of James plus a period of 60 years after his death**
- Copyright

15. In India, what is the term of protection for a utility patent?

- 10 years
- 15 years
- **20 years**
- 25 years

16. What is the process called when a third party challenges the validity of a granted patent?

- Patent licensing negotiation
- Patent infringement lawsuit
- Patent interference proceeding
- **Patent invalidation or patent revocation**

17. What is the term used to describe the act of unauthorized importation, sale, or use of a patented invention in India?

- **Patent infringement**
- Patent licensing
- Patent piracy
- Patent violation

18. A street vendor in Adyar is selling fake 'Nike' shoes. Under which area of Intellectual Property would Nike likely seek a remedy?

- Copyright
- **Trade Marks**
- Patents
- Trade Secrets

19. Jon Snow has designed a uniquely shaped walker for his brother Brandon Stark, which can be collapsed and, with the aid of two levers, also used as a chair. Jon plans to commercially produce his design under the name of Winterfell Stroller. Which of the following types of intellectual property would most likely apply to Jon's creation?

- Patent; copyright; trademark
- Trademark; industrial design; trade secret
- Copyright; trademark; industrial design
- **Patent; trademark; industrial design**

20. In India, a computer programme/software on its own can be protected by which of the following?

- Trade Marks
- **Copyright**
- Patents
- No IP protection is granted

21. Which of the following statements is true with respect to Industrial Designs?

- It protects the ornamental and aesthetic aspect of an article
- In India, the maximum term of protection is 15 years
- Industrial Design protects both three dimensional and two-dimensional features of a product
- **All of the above are true**

22. Coca Cola bottle, I Phone are the outbreak of the

- **Industrial design**
- GI
- Copy write
- Patent

23. The artistic work, not a subject matter for registration for Industrial Designs

- Paintings, sculptures, drawings including a diagram, map, chart or plan.
- Photographs and work of architecture.
- Any other work related to artistic craftsmanship
- **All of the above**

24. The two common methods of protecting a GI are

- Sui generis systems
- Collective mark systems
- TRIPS agreement
- **Sui and Collective system**

25. Turmeric Patent was revoked due to

- **Lack of novelty**
- Traditional Knowledge
- CSIR
- Foreign Monopoly



K. S. INSTITUTE OF TECHNOLOGY, BENGALURU - 560109
DEPARTMENT OF COMPUTER AND COMMUNICATION ENGINEERING

Branch : DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Course Name : Research methodology & IPR / **Course Code** : BRMK557
Semester/Section : V

Content Beyond Syllabus


Activity type : Quiz **Marks** : 25 reduced to 05
Objective : 1. To improve the learning, Engineering knowledge in Research and IPR
2. To improve the self-learning skills of students
POs Covered : PO 9, PO10

Sl.No	USN	Student Name	25	05
1	1KS22CM001	ADITHYA ARUN SATHVIK	24 / 25	5
2	1KS22CM002	ANITHA P C	25 / 25	5
3	1KS22CM003	ANUSH S	25 / 25	5
4	1KS22CM005	ARSHIYA J	25 / 25	5
5	1KS22CM006	ARUN L JADAVA LAMANI	25 / 25	5
6	1KS22CM007	B S AISHWARYA	25 / 25	5
7	1KS22CM008	B S BRUNDHA	25 / 25	5
8	1KS22CM010	BASAVARAJ PATIL	25 / 25	5
9	1KS22CM011	BRINDA S	25 / 25	5
10	1KS22CM012	DEEKSHA H R	24 / 25	5
11	1KS22CM013	DEEKSHA S	24 / 25	5
12	1KS22CM014	DEEPIKA G	7 / 25	5
13	1KS22CM015	DINESH SHARMA B	25 / 25	5
14	1KS22CM016	DISHA A	25 / 25	5
15	1KS22CM017	GANGOTHRI P	25 / 25	5
16	1KS22CM018	H R CHANDANA	24 / 25	5

17	1KS22CM019	HAJIRA ANWAR	25 / 25	5
18	1KS22CM020	HAMEED VAJIR TERDALE	25 / 25	5
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24	1KS22CM026	KUNDANKUMAR S	25 / 25	5
25	1KS22CM028	MANJUNATH K	25 / 25	5
26	1KS22CM030	MOHAMMED FAHIM R	25 / 25	5
27	1KS22CM031	NARASIMHA M K	25 / 25	5
28	1KS22CM032	NEELANJALI C	25 / 25	5
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32	1KS22CM036	PAVAN R	25 / 25	5
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37	1KS22CM041	RAKSHITH M	23 / 25	5
38	1KS22CM042	SAI SMRITI M	25 / 25	5
39	1KS22CM043	SAKSHI SINGH	25 / 25	5
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58	1KS23CM402	PRANATHI SAI M	25 / 25	5
59	1KS23CM403	RAKESH KUMAR R	25 / 25	5


Signature of Course In charge

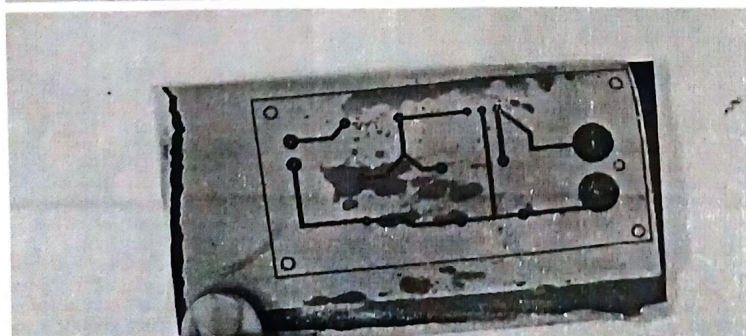
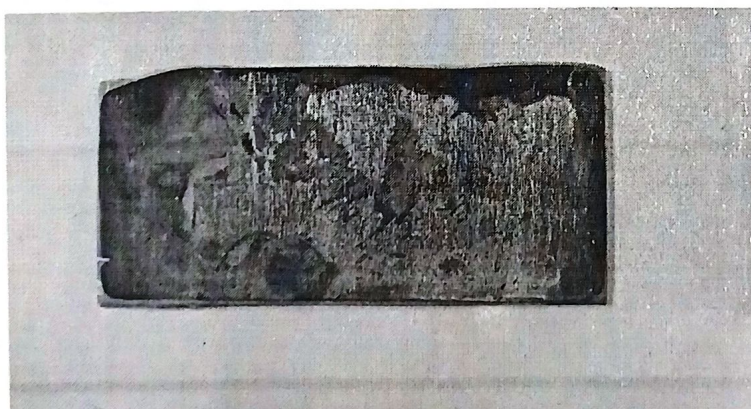

Signature of HOD
Head of the Department
Dept. of Computers and Communication Engg.
K. S. Institute of Technology
Bengaluru - 560 109.

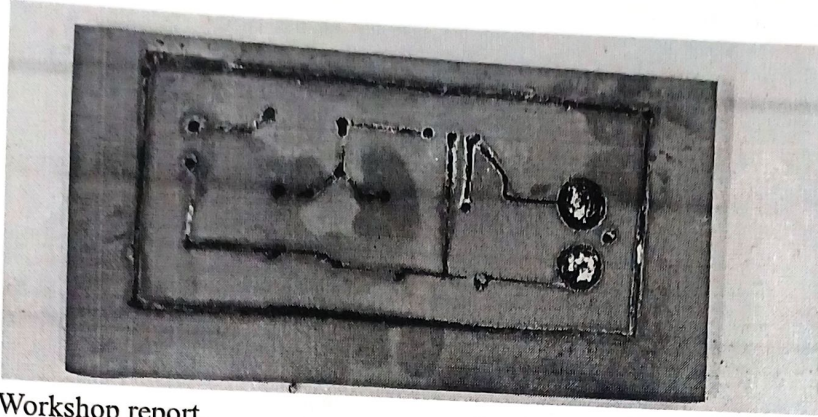


K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109
DEPARTMENT OF COMPUTER AND COMMUNICATIONS ENGINEERING
TEACHING AND LEARNING
CONTENT BEYOND SYLLABUS

Academic Year	2024-25
Name of the Faculty	Shilpa M.
Course Name /Code	Embedded system/BCE515B
Semester/Section	V/ A
Activity Name	Workshop on PCB layout design using OrCAD
Topic Covered	<ul style="list-style-type: none">• PCB layout design
No. of Participants	59
Objectives/Goals	To understand Design Thinking practically and henceforth improving their knowledge. To Understand the importance of Self alignment
ICT Used	BB+LCD+Systems with software OrCAD.
Appropriate Method/Instructional materials/Exam Questions	Workshop conducted with hands on on the OrCAD tool and physical design of the PCB.
Relevant CO's	CO1, CO3
Relevant PO's	PO8, PO9, P10, PO11, PO12
Significance of Results/Outcomes	Students were able to DESIGN A CIRCUIT USING SCHEMATIC ENTRY AND BUILD THE PCB LAYOUT FOR THE SAME. Circuits done – Power supply circuit, Astable multivibrator using IC 555.
Reflective Critique	<ul style="list-style-type: none">• Workshop helped students to have experiential learning of the tool described in the module.• Students had hands on with the tool and they physically built a PCB for power supply circuit.

Proofs attached:
Photos of the PCB designed





Workshop report.

https://drive.google.com/file/d/1OCwWHbg_TMtJtXiCekmvHzDcQUV24s43/view?usp=drive_link

Shilpa .M

Signature of the Course In-charge

Signature of HOD

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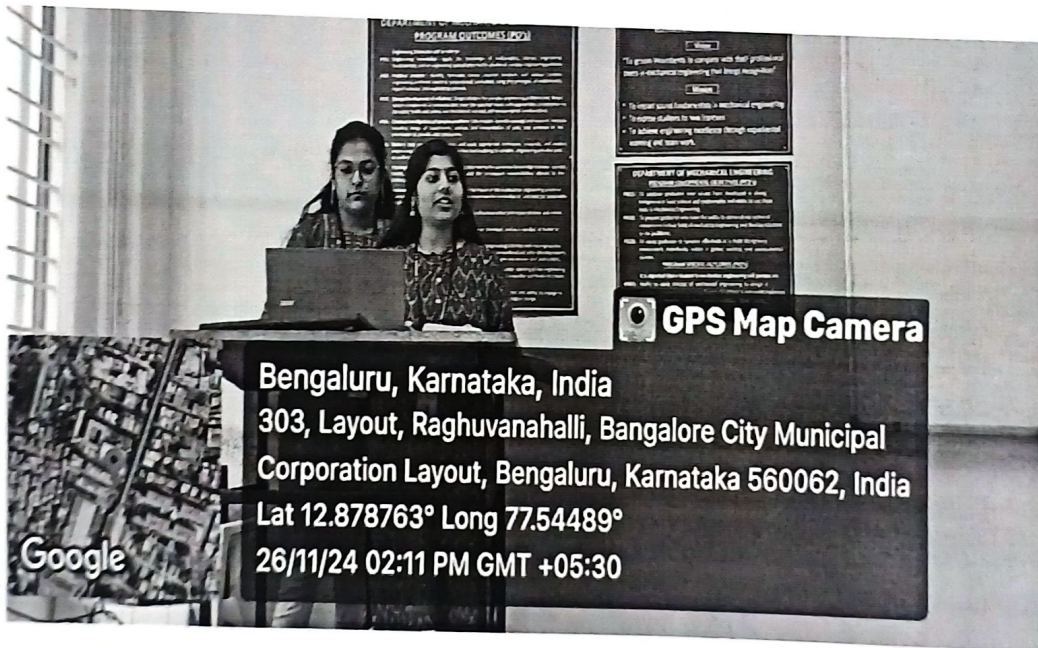
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DEPARTMENT OF COMPUTER AND COMMUNICATION ENGINEERING
TEACHING AND LEARNING
CONTENT BEYOND SYLLABUS

Academic Year	2024-2025
Name of the Faculty	T. NAGA JYOTHI
Course Name /Code	THEORY OF COMPUTATION (BCS503)
Semester/Section	V th /CCE
Activity Name	SEMINAR & COURSE
Topic Covered	CONVERSION OF NFA TO DFA AND ACCEPTABILITY OF A LANGUAGE,PARSE TREE GENERATION USING JFLAP TOOL
Date	25/11/24 TO 5/12/24
No. of Participants	59(Team of 3 to 4 members)
Objectives/Goals	<ul style="list-style-type: none"> • UTILISATION OF JFLAP TOOL FOR VARIOUS PROBLEMS • COURSE ON AUTOMATA THEORY
ICT Used	PPT
Appropriate Method/Instructional materials/Exam Questions	
<p>ICT TOOLS</p> <p>Exam questions:</p> <ol style="list-style-type: none"> 1. Convert the given problem from NFA to DFA 2. Generate the parse tree for the given grammar 3. Checking the acceptability of given language 4. Construct PDA and check the validity 5. Convert the given regular expression to epsilon NFA <p>COURSE OUTCOMES:</p> <p>CO 1:Apply the fundamentals of automata theory to write DFA,NFA, Epsilon-NFA and conversion among them</p> <p>CO 2:Prove the properties of regular languages using regular expressions and construct Epsilon NFA</p> <p>CO 3: Design Context free grammars and PDA's for formal languages.</p> <p>CO 4:Conversion of context free grammars to CNF,GNF</p> <p>CO 5:..Design Turing machine to solve the computation problems</p>	
<p>PO1: Science and engineering Knowledge</p> <p>PO2: Problem Analysis</p> <p>PO3: Design & Development</p> <p>PO4:Investigations of Complex Problems</p> <p>PO5: Modern Tool Usage</p> <p>PO6: Engineer & Society</p>	<p>PO7:Environment and Sustainability</p> <p>PO8:Ethics</p> <p>PO9:Individual & Team Work</p> <p>PO10: Communication</p> <p>PO11:Project Management & Finance</p> <p>PO12:Life long Learning</p>
<p>Mapped CO's: CO1</p> <p>Relevant PO's:PO1 – PO1,PO2,PO3,PO5,PO9,PO10,PO12</p>	<p>CO1: Apply the fundamentals of automata theory to write DFA,NFA, Epsilon-NFA and conversion among them</p> <p>PO1: Science and engineering Knowledge</p> <p>PO2: Problem Analysis</p> <p>PO3: Design & Development</p> <p>PO5: Modern Tool Usage</p>

	<p>PO9: Individual & Team Work PO10: Communication</p> <p>PO12: Lifelong Learning</p>
<p>Mapped CO's: CO2 Relevant PO's: PO1, PO2, PO5, PO9, PO10, PO12</p>	<p>CO2: Prove the properties of regular languages using regular expressions and construct Epsilon NFA</p> <p>PO1- Science and Engineering knowledge PO2- Problem Analysis PO3- Design & Development PO5- Modern Tool Usage PO9- Individual & Team Work PO10: Communication PO12- Lifelong learning</p>
<p>Mapped CO's: CO3 Relevant PO's: PO1, PO2, PO5, PO9, PO10, PO12</p>	<p>CO3: Design Context free grammars and PDA's for formal languages.</p> <p>PO1- Science and Engineering knowledge PO2- Problem Analysis PO3- Design & Development PO5- Modern Tool Usage PO9- Individual & Team Work PO10: Communication PO12- Lifelong learning</p>
<p>Mapped CO's: CO4 Relevant PO's: PO1, PO2, PO5, PO9, PO10, PO12</p>	<p>CO4: Conversion of context free grammars to CNF, GNF.</p> <p>PO1- Science and Engineering knowledge PO2- Problem Analysis PO3- Design & Development PO5- Modern Tool Usage PO9- Individual & Team Work PO10: Communication PO12- Lifelong learning</p>
<p>Mapped CO's: CO5 Relevant PO's: PO1, PO2, PO5, PO9, PO10, PO12</p>	<p>CO5: Design Turing machine to solve the computation problems</p> <p>PO1- Science and Engineering knowledge PO2- Problem Analysis PO3- Design & Development PO5- Modern Tool Usage PO9- Individual & Team Work PO10: Communication PO12- Lifelong learning</p>
<p>Significance of Results/Outcomes</p>	<ul style="list-style-type: none"> • Learning and utilizing JFLAP tool to solve various problems
<p>Reflective Critique</p>	<p>This pedagogy encouraged the students to gain knowledge about the topic in practical aspects and industry perspective.</p>

roofs (Photographs/Videos/Reports/Charts/Models)

Significant photographs are attached




Signature of Course In charge


Signature of HOD



CONTENT BEYOND SYLLABUS

Academic Year	2024-25 (ODD)
Name of the Faculty	D SARITHA
Course Name /Code	Software Engineering & Project Management /BCS501
Semester/Section	V/ A
Activity Name	PPT Presentation on DevOps
Topic Covered	DevOps
No. of Participants	59
Objectives/Goals	To understand DevOps to improving their knowledge.
ICT Used	PPT
Relevant PO's	PO8, PO9, P10, PO11, PO12
Significance of Results/Outcomes	Students were able to Understand the DevOs.

Proofs attached:

DevOps

What is DevOps ?

DevOps in simplest terms is "how you build and deploy your software".

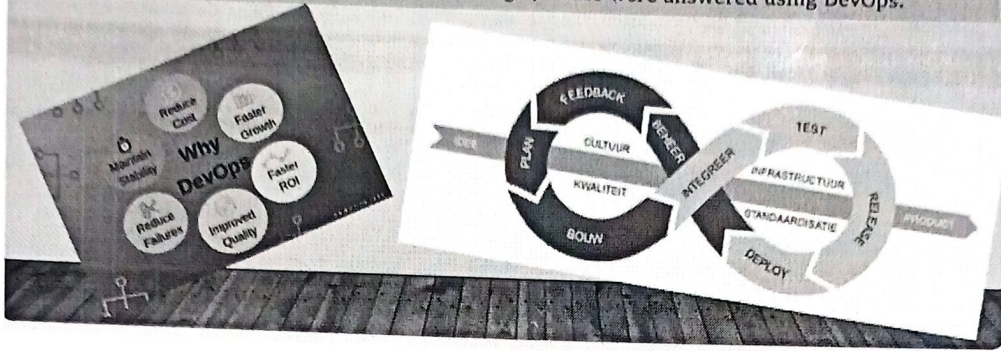
We all know, the word DevOps is a shortened acronym of Development and Operations. In essence, it is bringing together your software development team and operations team to work towards a common goal and have a unified vision. Their collective focus is always the product or the application which is being developed, rather than individual performances or targets.

Decoding DevOps

The assured benefits of DevOps philosophy are rapid software releases, shorter development cycles, reduced risks, quicker issue resolution, and better productivity. DevOps is a logical extension to agile and the main force behind the dynamism exhibited by many tech-giants for their extraordinary high performance. Shared responsibility, agile processes, automated tasks, smarter workflows, fearless innovation and continuous feedback are the driving factors of a DevOps.

What Led To DevOps?

As we all know, there were many challenges with the conventional waterfall process. Software Development and IT Operations were two separate units that worked independently. Developers coded their piece of work in silos with unique configurations / environment. With manual internal processes and workflows, productivity is always hampered by process bottlenecks or other dependencies. All such error, shortcomings, issues were answered using DevOps.



Signature of the Course In-charge

Signature of HOD

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