SREE BUDDHA COLLEGE OF ENGINEERING, PATTOOR

DEPARTMENT OF CIVIL ENGINEERING

THIRD SEMESTER BTECH (2021 Admission)

CEL 201: Civil Engineering Planning and Drafting Lab

List of Experiments

1. Panelled Door - Drawing
2. Glazed Window - Drawing
3. Steel Truss
4. R C Stair - Drawing

Building Planning

5. Residential Building with Flat roof
6. Residential Building with Sloping roof
7. Site Plan

Autocad Software

8. Tool Study - Autocad
9. Line Sketch Development - Residential Building with Flat roof
10. Line Sketch Development - Residential Building with sloping roof roof

KRISHNA KUMAR KOMALANGAN

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CEL 334 CIVIL ENGINEERING SOFTWARE LAB

List of Experiments

I. Analysis and design of steel and RCC elements using STADD.pro.

Exercise 1: Analysis and design of continuous and cantilever beams

Exercise 2: Analysis and design of plane truss and frames

Exercise 3: Analysis and design of multi-storied RCC framed structures.

II. Preparation of structural drawings of slabs and beams using Auto CAD.

Exercise 4: Detailed structural drawing of one way / two way and continuous slabs.

Exercise 5: Detailed structural drawing of singly reinforced / double reinforced Beams.

Exercise 6: Detailed structural drawing of continuous / flanged beams. Exercise 7: Detailed structural drawing of foundation units – isolated and combined footing (rectangular)

III. Use of Building Information Modelling tools using REVIT software.

Introduction to BIM process and describe the workflow in using BIM in the building lifecycle (Theory discussion – 2 hours)

Exercise 8: Preparation of building model from a given architectural drawing of a residential unit and perform model based cost estimation

Exercise 9: Create a schedule and import it into the 4D modelling environment, so that each activity in the schedule can be linked to an object in the model.

Exercise 10: Develop schedules for the construction of slabs, walls, columns, beams and windows of a section of a residential building

Exercise 11: Effect of rescheduling the activities to complete the project in minimum time frame.

IV. Use of Project Management Software (MS Project)

Introduction to project management -CPM & PERT (Theory class-2 hours)

Exercise 12: Preparation of Bar Chart/Gantt Charts/CPM/PERT Charts CIVIL ENGINEERING

Exercise 13: To find the critical Path based on the given set of activity / event data

Exercise 14: Practice on Resource allocation and Project Monitoring (Cost and Time).

V. Field exercise to use Total Station

Exercise 15: Field exercise on preparation of contour map for a given terrain using advanced surveying instruments like Total Stations (The survey activity undertaken shall be of at least 5000 Sq. m)

SREE BUDDHA COLLEGE OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

ESL 120 CIVIL WORKSHOP

CYCLE OF EXPERIMENTS

Cycle No. 1

Exp No 1: Computation of Area of a Building Using Tape

Exp No 2: Computation of Diameter and Thickness

Exp No 3: Horizontal Measurements

Exp No 4: Transfer the Level from One Point to Another

Cycle No. 2

Exp No 1: Setting Out of Building Using Tape

Exp No 2: Study of Plumbing and Sanitary Fittings

Exp No 3: Construction of One and a Half Brick Thick Wall Using English Bond

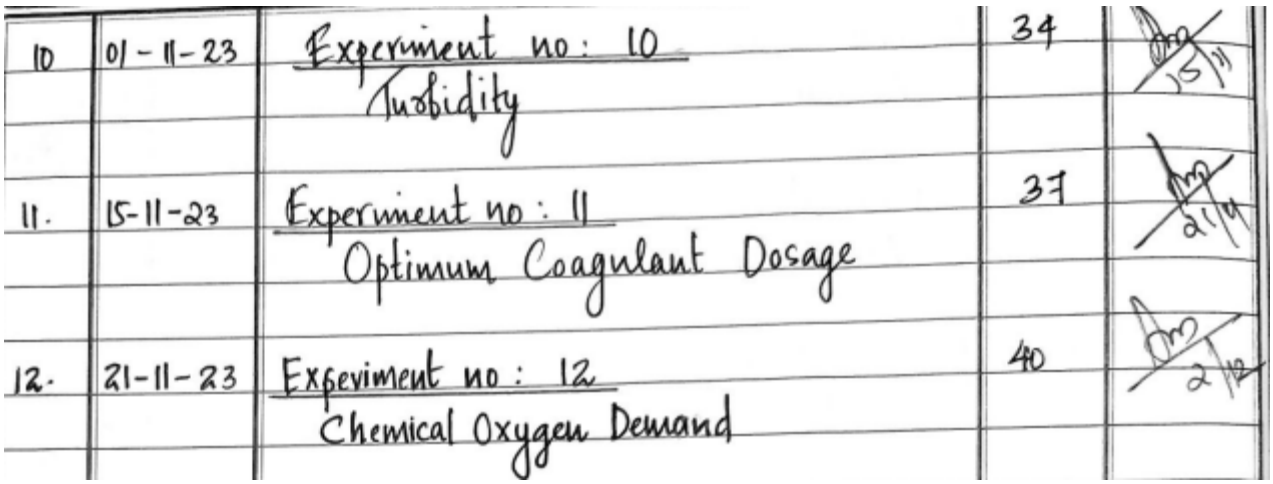
Exp No 4: Installation of a Small Rain Water Harvesting

Exp No 5: Estimation of Number of Building Blocks to Construct a Wall

Faculty

HoD

SL.NO.	DATE	NAME OF EXPERIMENTS	PAGE NO.	REMARKS
1.	22-08-23	Experiment no: 1 Acidity	1	
2.	22-08-23	Experiment no: 2 Alkalinity	4	
3.	26-09-23	Experiment no: 3 Chlorides	7	
4.	26-09-23	Experiment no: 4 Residual chlorine	10.	
5.	03-10-23	Experiment no: 5. Dissolved oxygen	13	
6.	17-10-23	Experiment no: 6 pH	18	
7	17-10-23	Experiment no: 7 Solids	23	
8.	31-10-23	Experiment no: 8 Biochemical Oxygen Demand	26	
9	1-11-23	Experiment no: 9 Total hardness	30	



10	01-11-23	Experiment no: 10 Turbidity	34	
11.	15-11-23	Experiment no: 11 Optimum Coagulant Dosage	37	
12.	21-11-23	Experiment no: 12 Chemical Oxygen Demand	40	

MATERIAL TESTING LAB- II

CYCLE OF EXPERIMENTS

Cycle I

1. Test on Cement
    a. Consistency of Standard Cement Paste
    b. Initial and Final Setting Time
    c. Compressive Strength of Cement Mortar Cube
2. Bulking of Fine Aggregate
3. Particle Size Distribution of Aggregates
    a. Fine Aggregate
    b. Coarse Aggregate
4. Specific gravity of Aggregates
    a. Fine Aggregate
    b. Coarse Aggregate

Cycle II

1. Bulk Density, Voids Ratio, Porosity of Aggregates
2. Compressive Strength of Concrete
   Compressive Strength of Bricks
3. Test on Fresh Concrete
    a. Preparation of cube, cylinder and beam specimen
4. Workability Test
    a. Slump Test
    b. Compacting Factor Test
    c. Vee-Bee Test

Cycle III

1. Splitting Tensile Strength of Concrete
2. Flexural Tensile Strength of Cement Concrete
3. Non- Destructive Tests
    a. Rebound Hammer Test
    b. Ultra Sonic Pulse Velocity Test

ESL202: Digital lab. **COURSE PLAN**

Cycle	Session	List of Experiments
	1	PART A
	2	1) Realization of functions using basic universal
	3	gates (SOP and POS forms)
	4	
	5	2) Design and realization of HA, FA, HS & FS
	6	
	7	3) Code converters
	8	
	9	4) Design and implement 4 bit adder /subtracto
	10	circuit and BCD adder using IC 7483
	11	
	12	5) Implementation of flipflops.
	13	
	14	6) Realization of Multiplexers and Demultiplexers
	15	using gates.
	16	
	17	7) Design and set up a 2-bit magnitude comparato
	18	
	19	8) Asynchronous counter.
	20	
	21	

Cycle	Session	List of Experiments
	26	Part B
	27	
	28	1) Realization of logic gates and familiarization of Verilog
	29	
	30	
	31	2) Half adder and full adder
	32	
	33	3) Code converters.
	34	
	35	4) Mux and Demux in Verilog.
	36	
	37	
	38	

List/Cycle of Experiments :

I. AUTO CADD

Structural Drawings for

a) Slabs and Beams

i. One Way / Two way Slab/Continuous Slabs

ii. Singly reinforced /Double reinforced Beams

iii. Continuous / Flanged Beams

b) Stair Case (Doglegged and Tread and Riser Type)

c) Foundations (Isolated and Combined Rectangular)

II. STAAD

Analysis and design of steel and RCC elements using **STAAD**/SAP 2000/ ETABS/any FEM software package.

a) Continuous and Cantilever beams

b) Plane truss and Frames

III. MS Project

Use of Project Management Software (**MS Project**/Primavera)

a) Preparation of Bar Chart/Gantt Charts/CPM/PERT Charts and finding Critical Path

b) Practice on Resource allocation (and Project Monitoring(Cost and Time)

IV. Conduct of **Survey camp** using **Total Station** (minimum 3 days duration) and its plotting

CONTENTS

Exp. No.	Name of the Exercise	Page No.
1	Palindrome check	1
2	Frequency of character in string	2
3	Matrix multiplication	3
4	Inheritance	5
5	Polymorphism	7
6	Garbage collector	8
7	String tokenizer	9
8	File handling-reader/writer.	10
9	File copy-file related exceptions	11
10	Usage of try, catch, throws and finally	13
11	Multi-threaded program	15
12	Thread synchronization.	17
13	Simple calculator-Java Swing	20
14	Traffic light	25
15	Java Database Connectivity	29
16	Doubly linked list	30
17	Quick sort algorithm	31
18	Binary search algorithm	35

Programming in C

LIST OF EXPERIMENTS

Experiment No. 1 : Familiarization of Hardware components of a computer

Experiment No. 2 : Familiarization of Linux operating system & basic linux commands

Experiment No. 3 : Familiarization of console I/O and operators in C

1. Display "Hello World"

2. Read two numbers add them and display their sum

3. Read the radius of a circle, calculate its area and display it

4. Evaluate the arithmetic expression ((a -b / c * d + e) * (f +g)) and display its solution. Read the values of the variables from the user through console.

Experiment No. 4 : Familiarization of Control Statements in C

1. Write a program to read 3 integer values and find the largest among them.

2. Write a program to check whether a given year is leap year or not.

3. Write a program to check which type of triangle.

4. Write a program to find the roots of quadratic equation.

5. Write a program to check whether a given number is palindrome or not.

6. Write a program to find power of a number.

7. Write a program to check whether the given no is prime or not.

Experiment No. 5 : Familiarization of Arrays

1. Implement a program for performing the following:

(a) Searching an element in an array

(b) Insert an element into the given position

(c) Delete an element from the given position.

(d) Sort N elements of the array.

2. Using switch statement write a program for finding the sum, product and the sum of diagonal elements of given matrix / matrices

Experiment No. 6 : Familiarization of Strings

1. Write a program to perform string handling functions on a string.
2. Write a program to read two strings and concatenate them and display the length of resultant string. Also count the number of vowels in the new string. (without using string handling functions)
3. Write a program to remove the occurrence of 'the' from the entire text.
4. Write a program to check whether a string is palindrome or not using function.

Experiment No. 7 : Familiarization of structure & union

1. Write a program to display the mark list of a student using structure. (Hint: n marks)
2. Write a program to display student details using structure. (Hint : use structure mark within structure student.).
3. Write a program to copy employee details from one structure variable to another.
4. Write a program to check whether the marks of two students are equal.

Experiment No. 8 : Familiarization of Pointers & Files

1. Write a program to sort the elements in an array using pointers and function. (using a function named swap to interchange elements).
2. Write a program to search an element in the given array-using pointer.
3. Write a program to find the biggest among n numbers in an array using pointers.
4. Display the details of an employee using the concept of structure and pointer variable.
5. Write a program to display student record using file.
6. Write a program to merge two files.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSL 331: SYSTEM SOFTWARE AND MICROPROCESSOR LAB

LAB CYCLE

CYCLE 1

1. Simulate the following non preemptive scheduling algorithms to find turn around time and waiting time.
   a) FCFS b) SJF c) Priority Scheduling d)Round Robin (Preemptive)
2. Simulate the following Disk Scheduling Algorithms
   a) FCFS b) SCAN c) CSCAN
3. Implement the Banker's Algorithms for Deadlock Avoidance.

CYCLE II

1. Implement pass 1 of a two pass assembler.
2. Implement pass 2 of a two pass assembler.
3. Implement a Single pass assembler.
4. Implement an Absolute Loader.
5. Implement a Relocating Loader.

CYCLE III

1. Introduction to MASM & debugging commands.
2. String Manipulation
3. Basic Arithmetic operations
4. Searching of a number
5. ASCII to BCD Conversion

CYCLE IV

1. Interfacing Stepper Motor with 8086 microprocessor
2. Interfacing Digital to analog converter with 8086 microprocessor
3. 16 BIT addition using 8051
4. 8 BIT Subtraction using 8051
5. 8 BIT Multiplication using 8051
6. 8 BIT Division using 8051

SREE BUDDHA COLLEGE OF ENGINEERING

DEAPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSL204 OPERATING SYSTEMS LAB(AI&ML)

LABCYCLE

1. Familiarization of Unix commands.
2. System calls of Linux operating system.
3. Implement programs for IPC using shared memory.
4. Implement semaphores.
5. Implementation of CPU scheduling algorithms.
6. Implementation of memory allocation methods.
7. Implement page replacement algorithms.
8. Implement the Banker's algorithm for deadlock avoidance.
9. Simulate disk scheduling algorithms.

201 DATA STRUCUTRES LAB

1. Implementation of searching algorithms:-
    - Linear Search
    - Binary Search
2. Implementation of sorting algorithms:-
    - Bubble Sort
    - Insertion Sort
    - Selection Sort
    - Quick Sort
    - Merge Sort
3. Implementation of polynomial – Addition using array.
4. Implementation of Sparse matrices-Addition using arrays
5. Implementation of the Stack operations using arrays
6. Implementation of the Queue operations using arrays
7. Implementation of the Priority Queues using arrays.
8. Implementation of the DE queue Queues using arrays.
9. Implementation of the Circular Queues using arrays.
10. Implementation of infix to postfix conversion
11. Implementation of postfix evaluation.
12. Representation of polynomials using Linked List and implement addition.
13. Implementation of stack and queue using linked list.
14. Implementation of binary tree and traversals.
15. Implementation of BFS and DFS for each graph representation.
16. Implementation of hash table using mapping functions.

DEPARTMENT OF CIVIL ENGINEERING

CEL 332 – TRANSPORTATION ENGINEERING LAB

CYCLE OF EXPERIMENTS

CYCLE	EXP.NO	LIST OF EXPERIMENTS
I	1	Aggregate crushing value test
	2	Aggregate impact value test
	3	Shape tests for aggregates
	4	Specific gravity and water absorption test
	5	Angularity number
	6	Determination of California bearing ratio
	7	Penetration test
	8	Softening point test
II	9	Los Angeles abrasion value Test
	10	Determination of ductility of bitumen
	11	Determination of flash point and fire point of bituminous material
	12	Determination of stripping value of road aggregates
	13	Use of MERLIN apparatus to determine road roughness
	14	Determination of viscosity of bituminous material

DEPARTMENT OF BIOTECHNOLOGY AND BIOCHEMICAL ENGINEERING

BTL332 DOWNSTREAM PROCESSING LAB

LIST OF ECPERIMENTS

CYCLE 1

1. Cell lysis using organic solvents
2. Cell disruption using enzymes

CYCLE 2

3. Determination of optimum coagulant dose for microbial cell recovery
4. Comparison of flocculating power of different flocculants

CYCLE 3

5. Determination of Isoelectric point of proteins and isolation of proteins from aqueous systems by pH change.
6. Salting out: Ammonium sulphate precipitation
7. Organic solvent mediated precipitation: Concentration of proteins from aqueous systems by addition of organic solvents

CYCLE 4

8. Aqueous two phase extraction of proteins/enzymes from aqueous systems.
9. Study on Gel filtration chromatography
10. Study on Crystallization.

Faculty

HOD

RECENT TRENDS IN STRUCTURAL ENGINEERING

Date of Event: 25-11-2022

Venue: Seminar Hall

Under the seminar series a seminar was conducted on 25-11-2022, under the theme Recent Trends in Structural Engineering which was inaugurated by Dr.GouriAntherjanam, Head of the Department. The panel included Dr.GouriAntherjanam, Prof. Shobha Elizabeth Thomas, and Prof.Anusree Lal. Twenty Three students presented their topics. The best paper was selected according to the marks distributed and Pooja Rajendran was awarded the best paper certificate by Dr.GouriAntherjanam. The session ended by 4:15pm.

SREE BUDDHA COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROJECT PHASE I - VII (2020 - 2024 Batch)

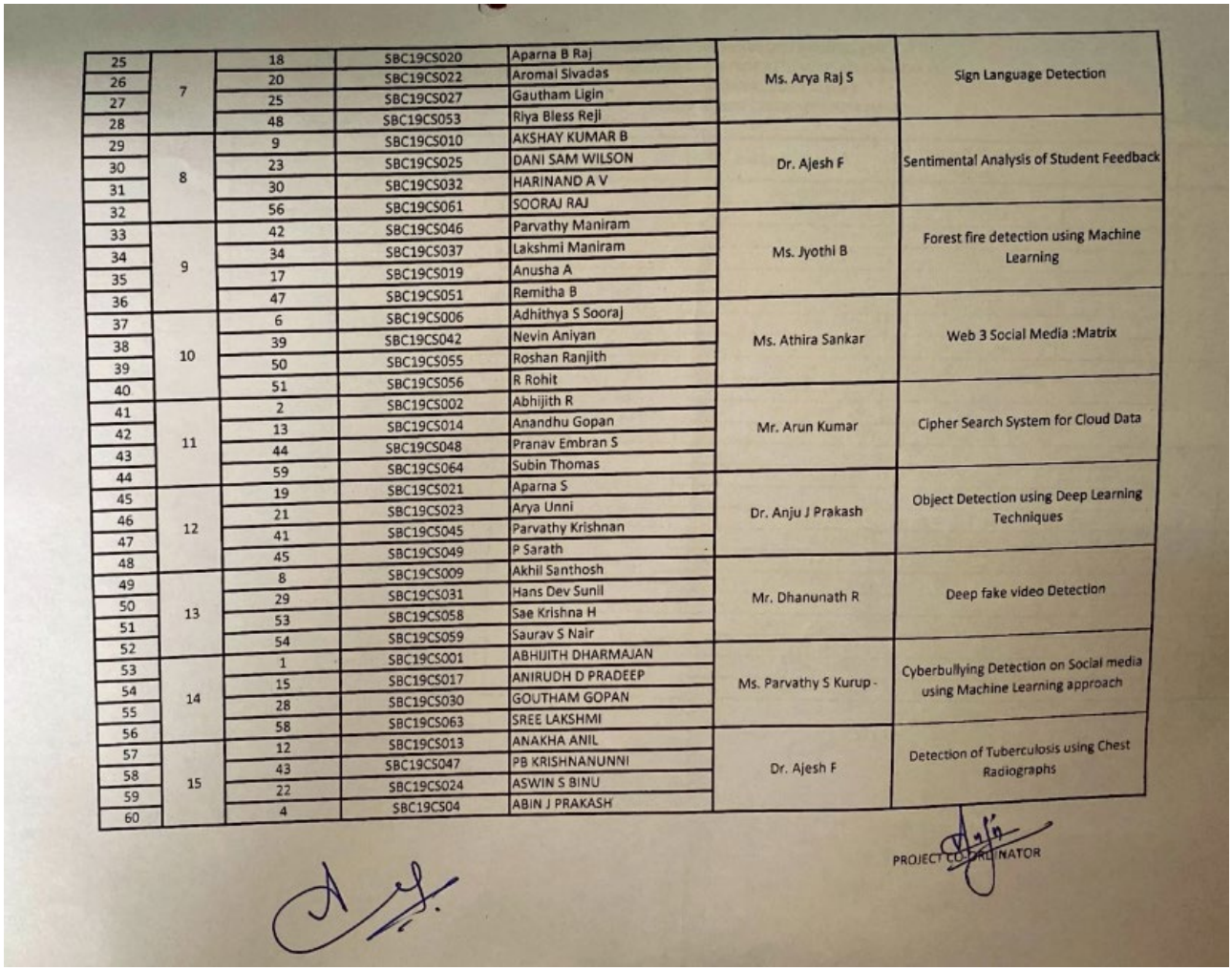
PROJECT - GROUP LIST AND AREA

Sl. NO.	GROUP NO:	ROLL NO:	NAME	GUIDE	Area	Project Title
1	1	35	Jobin C Johnson	Ms.Supriya L P	Machine Learning	Enhancing Autism Spectrum Disorder Interventions using ML
2		45	Mrudul E S			
3		6	Alena Achankunju Daniel			
4		59	Sreehari K U			
5	2	56	Saira Nazir	Ms.Minu Lalitha Madhav	App Development	E mentoring Application
6		58	Sivinna Mary Philip			
7		39	Kavya Trini R			
8		41	Lekshmi R Nair			
9	3	8	Amarjith V	Ms. Anju Viswam	Image Processing	Multilingual Hardcorded Subtitle Extractor
10		19	Aravind K M			
11		12	Anaswara Anil			
12	4	28	DEVANARAYAN S	Ms.Dhanya Sreedharan	Mobile Development	Dual Mode UPI Payment Solution
13		40	KARTHIK ANIL			
14		33	GOURI MENON			
15		27	BIBIN T DANIEL			
16	5	22	ARJUN VINOD	Mr. Arun Kumar	NLP/Machine Learning	Automated Scoring of subjective answers using NLP and Machine Learning
17		32	GOKUL KRISHNAN R			
18		34	HITHA R			
19		49	P.S.KRISHNENDHU			
20	6	23	Aryalekshmi. A	Dr Anju J Prakash	Machine Learning	HealthMentor - Health Monitoring app
21		31	Divyasree k			
22		38	Karthika S			
23		40	K S Abhijith			
24	7	30	Drishya Das	Ms.Aryaraj S	Machine Learning	PERSONALITY PROFILING USING CV ANALYSIS
25		36	Jocelyn Ann Joseph			
26		51	R. Gopika Krishnan			
27		55	Rohith R.			
28	8	50	Reshmi S Kaimal	Ms.Athira Sankar	IoT/ML	Water Monitoring System Using IoT
29		61	Vaishnavi A K			
30		57	Sajishma S R			
31		5	Alan Raj			
32	9	4	Akhil S George	Ms.Nineesha P	Internet of Things	BuSync Using IoT
33		20	Arjun S			
34		15	Anjaly Satheesh			
35		60	Surabhil S Kumar			
36	10	7	Alex G Daniel	Mr.Dhanunath R	NLP/AR	MediKnow: A Malayalam QAS for cancer awareness
37		14	Anjali Rajendran			
38		54	Sabari Krishna R			
39		63	Vijay Biju			
40	11	1	Abhiram A	Dr.Ajesh F	App Development/Machine Learning	Expiry Date Notifier with Health Monitoring System
41		21	Arjun Saju			
42		33	Hemanth S Nair			
43		42	Manu Shankar			

44	12	55	Sai kishor	Ms. Parvathy Kurup	Deep Learning	Face Image Synthesis
45		47	Pranav.P			
46		48	Pranav.P.Nair			
47		24	Aryan S Nair			
48	13	26	Bhavana Rajendran	Ms.Chinchu M S	Internet of things	Iot Based Smart Garbage Detection System
49		44	Merlin Meriya Shibu			
50		17	Anusree D			
51	14	9	Amit Sankar Arun	Dr Anil AR	Machine Learning	Social Media fake account detection
52		11	Anandu S Sivan			
53		16	Anoop Manoharan			
54		10	Anandhu anil kumar			
55	15	13	Aneetta Ann Mathew	Dr. SV Annlin Jeba	Blockchain	Security in Cloud Computing using Blockchain
56		18	Aparna Vijayakumar			
57		43	Megha Raju			
58		64	Diya Krishna A			
59	16	25	Bhagyadev.S	Ms. Aswathy	Deep learning	xtraction systems using convolutional and long short ter
60		46	Nidhisha I			
61		52	Riya Raveendran			
62		62	Vaishnavy S			
63	17	65	Jais John	Ms Reshmi	HCI / ML	Virtual Mouse Gesture using ML
64		2	Adil Mohammed Shajahan			
65		3	Akhil Norman			

SREE BUDDHA COLLEGE OF ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
CSD415 PROJECT PHASE II
SEMESTER VII(PROJECT TITLE & GUIDE)

Sl No	Group	Rollno	University Register Number	Name of Student	Supervisor	Title
1	1	7	SBC19CS007	Adithya Panchaman	Dr. Annlin Jeba	Hall ticket Fake Detection
2		24	SBC19CS026	Deepak Vijay		
3		35	SBC19CS038	Malavika Unni		
4		50	SBC19CS050	Rahul Ramesh		
5	2	33	SBC19CS036	Jisha P Animon	Dr. Anil A R	CYBORG:Virtual Assistant for all
6		40	SBC19CS043	Nikhila M		
7		26	SBC19CS028	Gautham S		
8		52	SBC19CS057	R S Sreehari		
9	3	16	SBC19CS018	Anuja Sreekumar	Ms. Chinju M S	Smart Classroom Monitoring System
10		36	SBC19CS039	Mridhula Murali		
11		49	SBC19CS054	Rony Thomas		
12		55	SBC19CS060	Shanthanu R		
13	4	57	SBC19CS062	SREEHARI SUNIL	Ms. Dhanya Sreedharan	E-Banking with Machine Learning
14		60	SBC19CS065	VIJAY V		
15		27	SBC19CS029	GAYATHRI S PILLAI		
16		10	SBC19CS011	ALAN T JOHN		
17	5	3	SBC19CS003	ABHINAND RAJ	Ms. Soumya Murali	Smart 24/7 Complaint Cell
18		14	SBC19CS015	ANANDHU.M		
19		11	SBC19CS012	AMRITHA DILEEP KUMAR		
20		5	SBC19CS005	ADARSH S		
21	6	31	SBC19CS033	IRFANA THANGAL	Ms. Supriya L P	Emotion based Movie Reccomendation System
22		32	SBC19CS035	JEN GEORGE KOSHY		
23		37	SBC19CS040	MRIDULA V MADHU		
24		38	SBC19CS041	NAVAMI AJAY		



25	7	18	SBC19CS020	Aparna B Raj	Ms. Arya Raj S	Sign Language Detection
26		20	SBC19CS022	Aromal Sivadas		
27		25	SBC19CS027	Gautham Ligin		
28		48	SBC19CS053	Riya Bless Reji		
29	8	9	SBC19CS010	AKSHAY KUMAR B	Dr. Ajesh F	Sentimental Analysis of Student Feedback
30		23	SBC19CS025	DANI SAM WILSON		
31		30	SBC19CS032	HARINAND A V		
32		56	SBC19CS061	SOORAJ RAJ		
33	9	42	SBC19CS046	Parvathy Maniram	Ms. Jyothi B	Forest fire detection using Machine Learning
34		34	SBC19CS037	Lakshmi Maniram		
35		17	SBC19CS019	Anusha A		
36		47	SBC19CS051	Remitha B		
37	10	6	SBC19CS006	Adhithya S Sooraj	Ms. Athira Sankar	Web 3 Social Media :Matrix
38		39	SBC19CS042	Nevin Aniyan		
39		50	SBC19CS055	Roshan Ranjith		
40		51	SBC19CS056	R Rohit		
41	11	2	SBC19CS002	Abhijith R	Mr. Arun Kumar	Cipher Search System for Cloud Data
42		13	SBC19CS014	Anandhu Gopan		
43		44	SBC19CS048	Pranav Embran S		
44		59	SBC19CS064	Subin Thomas		
45	12	19	SBC19CS021	Aparna S	Dr. Anju J Prakash	Object Detection using Deep Learning Techniques
46		21	SBC19CS023	Arya Unni		
47		41	SBC19CS045	Parvathy Krishnan		
48		45	SBC19CS049	P Sarath		
49	13	8	SBC19CS009	Akhil Santhosh	Mr. Dhanunath R	Deep fake video Detection
50		29	SBC19CS031	Hans Dev Sunil		
51		53	SBC19CS058	Sae Krishna H		
52		54	SBC19CS059	Saurav S Nair		
53	14	1	SBC19CS001	ABHIJITH DHARMAJAN	Ms. Parvathy S Kurup -	Cyberbullying Detection on Social media using Machine Learning approach
54		15	SBC19CS017	ANIRUDH D PRADEEP		
55		28	SBC19CS030	GOUTHAM GOPAN		
56		58	SBC19CS063	SREE LAKSHMI		
57	15	12	SBC19CS013	ANAKHA ANIL	Dr. Ajesh F	Detection of Tuberculosis using Chest Radiographs
58		43	SBC19CS047	PB KRISHNANUNNI		
59		22	SBC19CS024	ASWIN S BINU		
60		4	SBC19CS04	ABIN J PRAKASH		

PROJECT COORDINATOR

EEL202: ELECTRICAL MACHINES LAB I

CYCLE 1

1. Brake Test on a DC Shunt Motor
2. Brake Test on a DC Series Motor
3. Load Test on a DC Shunt Generator
4. Open Circuit Characteristics of a DC Shunt Generator
5. OC & SC Tests on a Single-Phase Transformer
6. Direct Load Test on a Single-Phase Transformer

CYCLE 2

7. Swinburne's Test on DC Shunt Machine
8. Load Characteristics of DC Compound Generator
9. Separation of Losses in a DC Shunt Motor
10. Hopkinson's Test
11. OC & SC Tests on a Three Phase Transformer
12. Sumpner's Test

EE 234 : CIRCUITS AND MEASUREMENTS LAB

CYCLE OF EXPERIMENTS

CYCLE 1

1. Determination of B H Curve
2. Measurement of self-inductance, mutual inductance and coupling coefficient
3. Determination of power and power factor of a single phase circuit
4. Verification of Thevenin's theorem in DC circuit
5. Verification of reciprocity theorem
6. Characteristics of LVDT

CYCLE 1I

7. Current measurement using clamp on meter
8. Calibration of single phase energy meter by direct loading and phantom loading
9. Calibration of three phase energy meter by direct loading
10. Extension of instrument range by using instrument transformer
11. Electronic Energy meter
12. Characteristics of Thermister, RTD and thermocouple

EE 332: SYSTEMS & CONTROL LABORATORY

LIST OF EXPERIMENTS

CYCLE I

1. Bode plot of Phase Lag network.
2. Bode plot of Phase lead network.
3. Step and Frequency response of R-L-C network.
4. Study of various types of synchros (TX, TR & TDX). Characteristics of transmitter, data transmission using TX-T R pair. Effect of TDX in data transmission.
5. MATLAB: Use of control system Tool box for the Time domain and frequency domain methods of system analysis and design.

CYCLE II

1. Study of P, PI and PID controllers. Response analysis of a typical system with different controllers, using process control simulator.
2. SIMULINK: Simulation and control of real time systems using SIMULINK.
3. Compensator design using Bode plot with MATLAB control system Tool box.

EEL 334 – POWER ELECTRONICS LAB

CYCLE OF EXPERIMENTS

1. Static characteristics of SCR
2. R and RC firing scheme for SCR control
3. Line Synchronized Triggering Circuits of SCR
4. AC Voltage Controller
5. Gate Driver Circuits for MOSFET/IGBT
6. Single Phase fully Controlled SCR bridge rectifier
7. Switching characteristics of MOSFET.
8. Single-phase half bridge/full bridge inverter using power MOSFET/IGBT

SIMULATION EXPERIMENTS:

1. Simulation of 1-phase fully-controlled rectifier fed R, RL, RLE load.
2. Simulation of buck/boost/buck-boost converters
3. Simulation of 1-phase half wave controlled rectifier fed R, RL, RLE load
4. Simulation of open loop or closed loop speed control of 3 phase induction motor using v/f control using PWM.

EEL 203 : ANALOG ELECTRONICS LAB

CYCLE OF EXPERIMENTS

CYCLE 1

1. Measurement of current, voltage, frequency and phase shift of signal in a RC network using oscilloscope.
2. Clipping circuits using diodes.
3. Clamping circuits using diodes.
4. Design and testing ofsimple Zener voltage regulator.
5. RC coupled amplifier using BJT in CE configuration-Measurement of gain, BW and plotting of frequency response.
6. Design and testing of series voltage regulator using Zenerdiode.

CYCLE 2

7. Op-amp circuits – Design and set up of inverting and non-inverting amplifier.
8. Op-amps circuits –integrator, and differentiator.
9. 9. Precision rectifier using Op-amps.
10. Phase shift oscillator using Op-amps.
11. Wein's Bridge oscillator using Op-amps.
12. Waveform generation– Square and triangular waveform generation using OPAMPs.
13. Schmitt trigger circuits using Op-amp
14. Astable and Monostable circuit using555IC.
15. RC phase shift oscillator using Op-amp..

EEL 331: MICROPROCESSORS AND MICROCONTROLLERS LAB

CYCLE OF EXPERIMENTS

CYCLE I

8085 Microprocessor Programming

1. Data transfer using different addressing modes and block transfer.
2. Arithmetic operations in binary and BCD: addition, subtraction, multiplication and division
3. Logical instructions- sorting of arrays in ascending and descending order.
4. Binary to BCD conversion and vice versa.
5. Demo Experiments using 8085 Microprocessor Programming:

   (a) Digital I/O using PPI: square wave generation.

   (b) Interfacing D/A converter- generation of simple waveforms-triangular, ramp etc.

   (c) Interfacing A/D converter.

CYCLE II

8051 Microcontroller Programming

6. ALP programming for Data transfer: Block data movement, exchanging data, sorting, finding largest element in an array.

6. ALP programming for Arithmetic operations: Addition, subtraction, multiplication and division. Computation of square and cube of 16-bit numbers.

7. ALP programming for implementing Boolean and logical instructions: bit manipulation.

8. Factorial of a number.

9. C Programs for stepper motor control.

10. C Programs for Alphanumerical LCD panel/ keyboard interface.

11. C Programs for ADC interfacing.

12. (a) Familiarization of Arduino IDE

    (b) LED blinking with different ON/OFF delay timings with Externally interfaced LED

EEL333: ELECTRICAL MACHINES LAB II

Cycle I

1. Load test on a three phase Slip Ring Induction Motor
2. No load and block rotor tests on a three phase Squirrel Cage Induction Motor
3. Starting of a three phase Squirrel Cage Induction Motor using STAR - DELTA Starter
4. No Load and Blocked Rotor Tests on a single phase Induction Motor
5. Load Test on a single phase Induction Motor
6. Regulation of a three phase Alternator by direct loading

Cycle II

7. Regulation of a three phase Alternator by emf and mmf methods
8. Regulation of a three phase alternator by Potier method
9. Slip Test on a three phase Salient Pole Alternator
10. V/f control of three phase Squirrel Cage Induction Motor
11. Performance characteristics of a three phase Induction Generator
12. V and inverted V curves of a Synchronous Motor

ESL 130 – ELECTRICAL & ELECTRONICS WORKSHOP

CYCLE OF EXPERIMENTS FOR PART 1 ELECTRICAL

1. a) Demonstrate the precautionary steps adopted in case of Electrical shocks.

   b) Identify different types of cables, wires, switches, fuses, fuse carriers, MCB, ELCB and MCCB with ratings.

2. Wiring of simple light circuit for controlling light/ fan point. (PVC conduit wiring)

3. Wiring of light/fan circuit using Two way switches. (Staircase wiring)

4. Wiring of Fluorescent lamps and light sockets (6A) with a power circuit for controlling power device. (16A socket)

5. Wiring of power distribution arrangement using single phase MCB distribution board with ELCB, main switch and Energy meter.

COURSE PLAN

ECL204 : Microcontoollea Lab

Cycle	Session	List of Experiments
	1	Addition / subtraction / multiplication / Division of 8/16 bit data
	2	Data transfer / exchange blw specified memory location
	3	Sum of a series of 8 bit numbers
	4	Largest / smallest from a series of numbers
	5	square / cube / square root of a number
	6	LCM / HCF of two 8 bit numbers
	7	Sorting (Ascending / Descending) order
	8	Time delay generation
	9	Stepper motor and DC motor interface
	10	Display and key board interface
	11	ADC interface
	12	DAC interface
	13	
	14	

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SEMESTER - VI (2020 - 2024 Batch)

MINI PROJECT - GUIDE , GROUP LIST AND AREA

SI. NO.	GROUP NO	ROLL NO:	NAME	GUIDE	Area	Base Paper title	Project Title
1	1	49	PS Krishnedhu	Mr.ARUN KUMAR	Web development	weather forecasting models ,methods and application	Advanced weather forecast system using python
2		34	Hitha R				
3		22	Arjun Vinod				
4		10	Anandhu anil kumar				
5	2	41	Leksmi R Nair	Ms.RESHMI S	App Development	Android application for Farmers	Android app for Farmers
6		56	Saira Nazzir				
7		58	Sivinna Mary Philip				
8		39	Kavya Trini R				
9	3	19	Aravind KM	Ms.PARVATHY S KURUP	Machine Learning	Advances in machine learning algorithms for hate speech detection in social media	Hate Speech Detection
10		2	Adil Muhammad Shajahan				
11		12	Anaswara Anil				
12		8	Amarjith V				
13	4	5	Akhil S George	Ms.ATHIRA SANKAR	Machine Learning	Flight price prediction system	Flight fare prediction
14		61	Sreehari K U				
15		32	Gokul Krishnan R				
16		66	Jais John				
17	5	23	Aryalekshmi.A	Dr.ANJU J PRAKASH	Machine learning	Heart disease prediction using machine learning and deep learning	Heart Disease Prediction
18		29	Divyasree.K				
19		38	Karthika.S				
20		40	K S Abhijith				
21	6	35	Jobin C Johnson	Ms.SUPRIYA L P	App development	Android application for freelancing	Freelancing application
22		45	Mrudul E S				
23		28	Devanarayan				
24		32	Gouri Menon				

SI. NO.	GROUP NO:	ROLL NO:	NAME	GUIDE	Area	Base Paper title	Project Title
25	7	51	R. Gopika Krishnan	Ms.ARYA RAJ S	Machine learning	Personality Prediction via CV Analysis using Machine Learning	Personality prediction through CV Analysis
26		36	Jocelyn Ann Joseph				
27		30	Drishya Das				
28		53	Rohith R				
29	8	50	Reshmi S Kaimal	Ms.DHANYA SREEDHARAN	Machine learning	Stress Detection in IT professionals using image processing and machine learning	Stress Detection in IT Professionals
30		61	Vaishnavi A K				
31		57	Sajishma S R				
32		5	Alan raj				
33	9	15	Anjaly Satheesh	Dr.ANNLIN JEBA	IoT	Integrated College Bus Tracking System	Smart College Bus Management System
34		6	Alena Achankunju Daniel				
35		20	Arjun S				
36		62	Surabhil S Kumar				
37	10	7	Alex G Daniel	Mr.DHANUNATH R	Machine learning	A Study on Significance on Features in Emotion Recognition System for Poems	Poem emotion detection
38		14	Anjali Rajendran				
39		54	Sabari Krishna R				
40		63	Vijay Biju				
41	11	1	Abhiram A	Dr.AJESH F	App Development	Automatic Expiry Date Notification System Interfaced with Smart Speaker	Expiry Date Notifier
42		21	Arjun Saju				
43		33	Hemanth S Nair				
44		42	Manu Shankar				
45	12	3	Akhil Norman	Ms.CHINCHU M S	Machine learning	Retail sales prediction using machine learning algorithms	Sales prediction using machine learning
46		48	Pranav P Nair				
47		11	Anandhu S Sivan				
48		24	Aryan S Nair				
49	13	13	Aneetta Ann Mathew	Ms.JYOTHI B	Machine learning	House price prediction using machine learning algorithm	House price prediction
50		18	Aparna Vijayakumar				
51		43	Megha Raju				
52		64	Diya krishna A				

Sl. NO.	GROUP NO:	ROLL NO:	NAME	GUIDE	Area	Base Paper title	Project Title
53	14	48	Pranav p	Dr.ANIL A R	Machine learning	Customer segmentation	Customer segmentation
54		16	Anoop Manoharan				
55		56	Sai Kishor				
56		10	Amit Sankar Arun				
57	15	44	Merlin Meriya Shibu	Mr.DHANUNATH R	Machine learning	text watermark removing using nlp	text watermark removing using nlp
58		26	Bhavana Rajendran				
59		17	Anusree D				
		27	Bibin T Daniel				
60		37	Karthik Anil				
61	16	53	Riya Raveendran	Ms.ANJU VISWAN	Web development	price comparison websites	price comparison website for online shopping
62		47	Nidhisha Ismail				
63		64	Vaishnavy S				
64		26	Bhagyadev.S				

STAFF IN-CHARGE

Ms. SUPRIYA L P
Dr. ANJU J PRAKASH

HoD

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