KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-15

DEPARTMENT OF PS AND M&H

No. /PS/M&H/KITS/2024 Date: /9/2024

CIRCULAR

Sub: I Semester -Allotment of Practicum topics– Reg.

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INSTRUCTIONS

Students:

1. The students should meet immediately the allotted course faculty for practicum and start working on the practicum with the guidance of course faculty.

2. To complete the Practicum, the student shall work in laboratories under supervision of allotted course faculty, in the allotted hours in the classwork timetable and also outside the class work hours during weekdays.

Practicum/Course Faculty:

1. The course faculty are advised to guide the allotted students for practicum during the semester course work.

2. In case of any clash in respect of practicum slot and practicum-faculty classwork, the practicum faculty should allot 4.00 p.m. to 6.00 p.m. slot to their practicum students on any full day. The same shall be informed to the class teacher, for record

Following is the practicum topics allotted to the I semester students of 1CSE4 section.

Section : 1CSE4

S.N0	Roll No	Practicum Topic alloted	Course	Course faculty
1	B24CS193	Predicting Stock Market Trends Using Time Series Forecasting and Machine Learning Techniques	Differential Calculus and ordinary differential equations [DCODE]	Dr. B. Yakaiah
2	B24CS194	Applying Roll's Theorem for Optimizing Financial Portfolio Returns Using Continuous Optimization Techniques	DCODE	Dr. B. Yakaiah
3	B24CS195	Designing Efficient Transportation Routes with Lagrange Interpolation and Geographic Information Systems	DCODE	Dr. B. Yakaiah
4	B24CS196	Geometric series with	DCODE	Dr. B. Yakaiah

		application to Real world problems		
5	B24CS197	Complex Network Analysis and Optimization Using Cauchy's Theorems for Flow and Connectivity	DCODE	Dr. B. Yakaiah
6	B24CS198	Optimizing Production Costs in Manufacturing Using Maxima and Minima Analysis of Cost Functions	DCODE	Dr. B. Yakaiah
7	B24CS199	Enhancing Financial Portfolio Optimization with Partial Differentiation and Risk Assessment Models	DCODE	Dr. B. Yakaiah
8	B24CS200	Enhancing Weather Prediction Models Using Jacobian Matrices for Sensitivity Analysis and Parameter Tuning	DCODE	Dr. B. Yakaiah
9	B24CS201	Enhancing Product Design with Maxima and Minima Analysis in Two Variables for Performance and Durability	DCODE	Dr. B. Yakaiah
10	B24CS202	Optimizing Financial Investment Strategies with First-Order ODEs for Asset Growth Modeling	DCODE	Dr. B. Yakaiah
11	B24CS203	Predicting Temperature Changes in Food Storage Systems Using Newton's Law of Cooling	DCODE	Dr. B. Yakaiah
12	B24CS204	Create your own Rainbow, find the magic to reverse Rainbow: Demonstrate the phenomenon“Dispersion of light”	Engineering Physics (EP)	Dr. D.MadhaviLatha
13	B24CS205	Build and Test boats of different models /materials - Archemedis Principle	EP	Dr. D.MadhaviLatha
14	B24CS206	Create simple machines: Demonstrate how a Lever do lot of favour	EP	Dr. D.MadhaviLatha
15	B24CS207	Design and build your own solar heater: Renewable Energy	EP	Dr. D.MadhaviLatha
16	B24CS208	Fly the rocket: Demonstrate the Newton’s laws of motion	EP	Dr. D.MadhaviLatha
17	B24CS209	Design your own plane: Demonstrate the forces that effect the flying body	EP	Dr. D.MadhaviLatha
18	B24CS210	Design the logic gate and verify the truth tables using logisim simulation tool	EP	Dr. D.MadhaviLatha
19	B24CS211	Design an Electromagnet and Demonstrate the Flemings rules	EP	Dr. D.MadhaviLatha
20	B24CS212	Detect the barcode: Employ laser light	EP	Dr. D.MadhaviLatha

21	B24CS213	Find the best one to spin more: Build your own Electric motor	EP	Dr. D.MadhaviLatha
22	B24CS214	Demonstrate different simple machines and their advantages.	EP	Dr. D.MadhaviLatha
23	B24CS215	Measure and analyse the performance of a CPU based on different parameters such as clock speed, instruction set.	Computer Organization & Architecture (COA)	K.Nimitha
24	B24CS216	Implement a simple ALU that can perform basic arithmetic operations(addition,subtraction) and logical operations (AND, OR, NOT).	COA	K.Nimitha
25	B24CS217	Implement a basic pipelined processor with stages like Instruction Fetch, Instruction Decode, Execution.	COA	K.Nimitha
26	B24CS218	Booth's Algorithm simulation for multiplication of unsigned numbers.	COA	K.Nimitha
27	B24CS219	Implement general-purpose register with control signals to load, hold, and store data.	COA	K.Nimitha
28	B24CS220	Implementing and Analysing BCD Addition and Subtraction Operations"	COA	K.Nimitha
29	B24CS221	Memory Transfer Simulator	COA	K.Nimitha
30	B24CS222	Implementation of a 4-Bit Register with Parallel Load and Shift Operations"	COA	K.Nimitha
31	B24CS223	Performance Evaluation on different Memory Transfer Techniques	COA	K.Nimitha
32	B24CS224	Performance evaluation of multiprocessing architecture.	COA	K.Nimitha
33	B24CS225	Implement general-purpose register with control signals to load, hold, and move data.	COA	K.Nimitha
34	B24CS226	Cricket Score Board Application Cricket second most popular game in the world. Most Indians are just crazy about this sport there is multiple application to check cricket scores, it is quite a tough job to maintain a live score of cricket, but we can create a simple C application to display Cricket score, we can create using basic C knowledge	Programming for Problem Solving with C (PPSC)	R.Radhika
35	B24CS227	Bus Ticket Reservation System Bus Reservation System is a tool that allows users to book tickets for their journey in advance. It offers multiple features to	PPSC	R.Radhika

		provide a hassle-free experience to a traveler. This article aims at building a rudimentary Bus Reservation System		
36	B24CS228	Calendar Application Calendar is a thing a requirement in everyone's life, it can be stored as a paper hardcopy or as a software application. We can create an application to check date, day, etc using an application that can be created with C using basic knowledge like arithmetic operations, strings, etc	PPSC	R.Radhika
37	B24CS229	Tic Tac Toe Game in C Tic Tac Toe is a game that was popularly played on paper or pen using the board. This is a fun game played by people of all ages. But now the digital version is becoming popular to have fun on the same game with friends. In this article, we will learn to write a program that allows a person to play tic tac toe against the computer.	PPSC	R.Radhika
38	B24CS230	Lexical Analyser Application Lexical Analyser is the concept of compiler design. Lexical Analyser is where a compiler converts the statements of the program into LEX tokens which further checks if the statements are correct or not. To know more about the concept of a lexical analyzer refer to Lexical Analysis.	PPSC	R.Radhika
39	B24CS231	Telecom Billing System in C In this article, we are going to create a basic Telecom Billing System using the C programming language. This system allows users to perform operations such as adding new customer records, viewing the list of records, modifying existing records, viewing payment details, searching for specific records, and deleting	PPSC	R.Radhika

		records		
40	B24CS232	Contact Management System This C project enables users to save, edit, and delete contacts, functioning like a phone book application. File handling and data structures are employed to store contact information.	PPSC	R.Radhika
41	B24CS233	Election System Application Users can enter choices, calculate total votes, and identify leading candidates. This simple C project is easy to understand and useful for small-scale election projects.	PPSC	R.Radhika
42	B24CS234	Quiz Game Create a quiz application that asksmultiple-choice questions, tracks correct answers, and displays the final score.	PPSC	R.Radhika
43	B24CS235	Library-Management-System The concept of storing or recording the details of books embedded within the user's system is known as Library Management System. It details the type of books, the list of books, etc. Only a person with the login credentials can access the Library Management System. That person can perform many operations like adding the book details, removing the book details, displaying the book details, modifying the book details, etc.	PPSC	R.Radhika
44	B24CS236	Mini Voting System This project aims at creating a virtual voting system that allows users to vote for an event or a person, and then display the results.	PPSC	R.Radhika
45	B24CS237	Simulation of a given electrical circuit to determine the current, voltage and power at a given resistance using mesh analysis. Verify the same with nodal analysis.	Basic Electrical Engineering BEE	Dr.B.Vijay kumar
46	B24CS238	Simulation by applying	BEE	Dr.B.Vijay kumar

		superposition theorem for a given electrical network to determine the current, voltage and power.		
47	B24CS239	Verify whether maximum power is transferred to the load in a given circuit.	BEE	Dr.B.Vijay kumar
48	B24CS240	Phase diagram for a R-L-C series circuit.	BEE	Dr.B.Vijay kumar
49	B24CS241	Determination of form factor and peak factor for half-wave and full-wave rectifier	BEE	Dr.B.Vijay kumar
50	B24CS242	LED blink test using Arduino.	BEE	Dr.B.Vijay kumar
51	B24CS243	Control of DC servo motor using Arduino	BEE	Dr.B.Vijay kumar
52	B24CS244	Arduino based traffic signal control	BEE	Dr.B.Vijay kumar
53	B24CS245	Light based street light controller using Arduino	BEE	Dr.B.Vijay kumar
54	B24CS246	IR sensor based distance measurement device	BEE	Dr.B.Vijay kumar
55	B24CS247	Investigating the Effects of Agricultural Runoff on Water Pollution.	Environmental Studies ES	Dr.E.Kalyan Rao
56	B24CS248	Comparative Study of Air Purification Technologies for IndoorAir Quality Improvement.	ES	Dr.E.Kalyan Rao
57	B24CS249	"Investigating the Environmental Impact of Electronic Waste Disposal.	ES	Dr.E.Kalyan Rao
58	B24CS250	Comparative Study of Green Chemistry Approaches in Electronic Production.	ES	Dr.E.Kalyan Rao
59	B24CS251	Assessing the Effectiveness of Reforestation Efforts in [Local Area]"	ES	Dr.E.Kalyan Rao
60	B24CS252	Evaluating the Effectiveness of Ecological Corridors in Connecting Habitats.	ES	Dr.E.Kalyan Rao
61	B24CS253	Evaluating the Effectiveness of Protected Areas in Preserving Biodiversity.	ES	Dr.E.Kalyan Rao
62	B24CS254	Investigating the Effects of Climate Change on Ecosystem Services.	ES	Dr.E.Kalyan Rao
63	B24CS255	Development of a Waste	ES	Dr.E.Kalyan Rao

		Reduction and Minimization Plan for [Industry/Institution].		
64	B24CS256	Evaluating the feasibility of renewable energy systems	ES	Dr.E.Kalyan Rao

Dr.D.Madhavi Latha
(Signature of class teacher)