KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-15

DEPARTMENT OF PS AND M&H

No. /PS/M&H/KITS/2024 Date: /09/2024

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 are the practicum topics allotted to the I semester students of CSE section.

Section : 3

S. No.	Roll number of the student	Practicum topic allotted	Practicum under the course	Course faculty
1	B24CS129	Logistic growth model with application to understand the species growth.	Differential Calculus and Ordinary Differential Equations (DCODE)	Dr.V.Anand
2	B24CS130	Natural law of growth model with application to real world problem: Bacteria culture growth	DCODE	Dr.V.Anand
3	B24CS131	Application of Newton's law of cooling: studying the temperature distribution in human body under specified conditions.	DCODE	Dr.V.Anand

4	B24CS132	Application of Integral curve.	DCODE	Dr.V.Anand
5	B24CS133	Application of Fibonacci sequence: Occurrence of spirals in nature.	DCODE	Dr.V.Anand
6	B24CS134	Geometric series application to a bouncing ball problem.	DCODE	Dr.V.Anand
7	B24CS135	Application of Linear differential equations- Electrical Circuits: - LCR Circuit.	DCODE	Dr.V.Anand
8	B24CS136	Formation of simultaneous differential equations for a given data.	DCODE	Dr.V.Anand
9	B24CS137	Application of Rolle's theorem: Interpretation for statistical data.	DCODE	Dr.V.Anand
10	B24CS138	Application of Linear differential equation: A mixing problem in chemical industry	DCODE	Dr.V.Anand
11	B24CS139	Numerical Approximation of Solutions: Euler's method	DCODE	Dr.V.Anand
12	B24CS140	Light sensor for detection of intensity of light.	Engineering Physics (EP)	Dr. P.Srinivasa Rao
13	B24CS141	Create a holographic display using a laser and holographic plate.	EP	Dr. P.Srinivasa Rao
14	B24CS142	Design and construction of a model to demonstrate the working of traffic signal lights.	EP	Dr. P.Srinivasa Rao
15	B24CS143	Design and construct an electronic circuit to sense touch	EP	Dr. P.Srinivasa Rao
16	B24CS144	Laser security system	EP	Dr. P.Srinivasa Rao
17	B24CS145	Building Electronics Kaleido-scope.	EP	Dr. P.Srinivasa Rao
18	B24CS146	Real time water level indicator and alert system	EP	Dr. P.Srinivasa Rao
19	B24CS147	Analyze the refractive index of various liquids and test their densities	EP	Dr. P.Srinivasa Rao
20	B24CS148	LED lights that rhythm according to music	EP	Dr. P.Srinivasa Rao
21	B24CS149	High Power LED Stroboscope	EP	Dr. P.Srinivasa Rao
22	B24CS150	Resolving power of a telescope	EP	Dr. P.Srinivasa Rao
23	B24CS151	Implement a Simple Calculator using fundamental Logic Gates	Computer organization &Architecture (COA)	Swapna Saturi
24	B24CS152	Implement Binary to Gray Code Converter	COA	Swapna Saturi
25	B24CS153	Develop a Traffic Light Contro-ller Using Sequential Circuits	COA	Swapna Saturi
26	B24CS154	Construct a 4-Bit Binary Counter Using Flip-Flops	COA	Swapna Saturi
27	B24CS155	Implement Binary Multiplication Using a Combinational Circuit	COA	Swapna Saturi

28	B24CS156	Implement a Shift Register for Serial Data Transmission	COA	Swapna Saturi
29	B24CS157	Develop a Binary Adder/ Subtractor Using Karnaugh Maps	COA	Swapna Saturi
30	B24CS158	Implement a Temperature Sensor Display System	COA	Swapna Saturi
31	B24CS159	Develop Alphanumeric Data Representation System	COA	Swapna Saturi
32	B24CS160	Construct a Digital Stopwatch Using Flip-Flops and Registers	COA	Swapna Saturi
33	B24CS161	Develop a Simple Voting Machine Using Logic Gates	COA	Swapna Saturi
34	B24CS162	Calendar : Develop a calendar application that displays the calendar for any given month or year	Programming for Problem Solving with C (PPSC)	Sri D.Naveen Kumar
35	B24CS163	Simple Voting System: A voting system that allows users to vote for predefined candidates and displaysthe results	PPSC	Sri D.Naveen Kumar
36	B24CS164	Tic-Tac-Toe Game: A simple text-based Tic-Tac-Toe game for two players	PPSC	Sri D.Naveen Kumar
37	B24CS165	Bank Management System: A application to simulate basic banking functionalities such as account creation, balance checking, deposits and withdrawals	PPSC	Sri D.Naveen Kumar
38	B24CS166	Student Record System: A system to manage student records (name, roll number, grades) with options to add, view, update, and delete records	PPSC	Sri D.Naveen Kumar
39	B24CS167	Library Mgnt. System: Simulates a library system where users can issue and return books, and manage an inventory of books	PPSC	Sri D.Naveen Kumar
40	B24CS168	Simple Chat application: Write a c program to Create a basic chat application where two users can send messages back and forth	PPSC	Sri D.Naveen Kumar
41	B24CS169	Simple ATM Machine: Simulate an ATM machine with features like checking balance, withdrawing cash, depositing money, and pin verification.	PPSC	Sri D.Naveen Kumar
42	B24CS170	To-Do List: Create a program where users can add, view, and remove tasks.	PPSC	Sri D.Naveen Kumar
43	B24CS171	Contact Management System: A program that lets users add, search, and delete contacts, along withstoring them in a file	PPSC	Sri D.Naveen Kumar

44	B24CS172	Quiz Game: Create a quiz application that asks multiple-choice questions, tracks correct answers, and displays the final score.	PPSC	Sri D.Naveen Kumar
45	B24CS173	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. G.Sudheer Kumar
46	B24CS174	Simulation by applying superposition theorem for a given electrical network to determine the current, voltage and power.	BEE	Dr. G.Sudheer Kumar
47	B24CS175	Verify whether maximum power is transferred to the load in a given circuit.	BEE	Dr. G.Sudheer Kumar
48	B24CS176	Measurement of 3-phase power for a star or delta connected load.	BEE	Dr. G.Sudheer Kumar
49	B24CS177	Determination of form factor and peak factor for half-wave and full-wave rectifier.	BEE	Dr. G.Sudheer Kumar
50	B24CS178	LED blink test using Arduino	BEE	Dr. G.Sudheer Kumar
51	B24CS179	Control of DC servo motor using Arduino	BEE	Dr. G.Sudheer Kumar
52	B24CS180	Arduino based traffic signal control	BEE	Dr. G.Sudheer Kumar
53	B24CS181	Light based street light controller using Arduino	BEE	Dr. G.Sudheer Kumar
54	B24CS182	Light intensity controller for an auditorium	BEE	Dr. G.Sudheer Kumar
55	B24CS183	Assessment of Air Quality in Urban and Rural Areas"	Environmental Studies (ES)	Dr.M.Ranadheer Kumar
56	B24CS184	"Water Quality Analysis of a Local River/Lake"	ES	Dr.M.Ranadheer Kumar
57	B24CS185	"Waste Management Practices: A Comparative Study"	ES	Dr.M.Ranadheer Kumar
58	B24CS186	"Environmental Impact Assessment of a Construction Project"	ES	Dr.M.Ranadheer Kumar
59	B24CS187	"Monitoring and Analysis of Noise Pollution in a City"	ES	Dr.M.Ranadheer Kumar
60	B24CS188	"Renewable Energy Sources: A Feasibility Study"	ES	Dr.M.Ranadheer Kumar
61	B24CS189	"Investigating the Impact of Agricultural Runoff on Water Quality"	ES	Dr.M.Ranadheer Kumar
62	B24CS190	"Sustainable Transportation: A Comparative Study of Alternative Fuels"	ES	Dr.M.Ranadheer Kumar

63	B24CS191	"Water Conservation Practices: A Study of Efficient Technologies"	ES	Dr.M.Ranadheer Kumar
64	B24CS192	"Environmental Policy Analysis: A Case Study of Implementation"	ES	Dr.M.Ranadheer Kumar

(Signature of class teacher)

Dr. P.Srinivasa Rao