# KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-15 DEPARTMENT OF PS AND M&H



Date: 27 /09/2024

No. /PS/M&H/KITS/2024

#### **CIRCULAR**

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

\*\*\*

## **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 1CSE2 Section.

Section: 1CSE2

S.No.	Roll number of the student	Practicum topic allotted	Practicum under the course	Course faculty
1.	B24CS065	Calculation of population growth using Geometric series	Differential Calculus and ordinary Differential Equations	Dr. S. Vishwa Prasad Rao
2.	B24CS066	Stability Analysis in Signal Processing: Applying Cauchy's Root Test	Differential Calculus and ordinary Differential Equations	Dr. S. Vishwa Prasad Rao
3.	B24CS067	Cauchy's Root Test in Economic and Financial Analysis: A Tool for	Differential	Dr. S.

		Time Series Investigation	Calculus and	Vishwa
		Time Series investigation		Prasad
			ordinary	
			Differential	Rao
		Ontimining Traffic Ciarral Time!	Equations	D., C
4.	B24CS068	Optimizing Traffic Signal Timings with Rolle's Theorem	Differential	Dr. S.
		with Rolle 5 Hieorem	Calculus and	Vishwa
			ordinary	Prasad
			Differential	Rao
	D04CC040	Application Circuit III	Equations	D 6
5.	B24CS069	Analyzing Simple Harmonic  Motion with Differential Equation	Differential	Dr. S.
		Techniques	Calculus and	Vishwa
			ordinary	Prasad
			Differential	Rao
	D24CC070	Lagrange Multiplian Mail - 1	Equations	D. C
6.	B24CS070	Lagrange Multiplier Method application in economics to solve	Differential	Dr. S.
		problems that involve constrained	Calculus and	Vishwa
		optimization	ordinary Differential	Prasad
		<u> </u>		Rao
-		Padioactive Decay and Carles	Equations	D <sub>m</sub> C
7.	B24CS071	Radioactive Decay and Carbon Dating: A First-Order Differential	Differential	Dr. S.
		Equation Approach	Calculus and	Vishwa
			ordinary	Prasad
			Differential	Rao
8.	B24CS072	First Onder Differential Facility	Equations Differential	Dr. S.
8.	D24C30/2	First-Order Differential Equations in Economic Modeling and		Dr. S. Vishwa
		Finance.	Calculus and	Vishwa Prasad
		i marce.	ordinary Differential	Prasad Rao
			Equations	Nau
9.	D0 4 C0 2 = 2	Solving the Pursuit Problem: A	Differential	Dr. S.
٦.	B24CS073	First-Order Differential Equation	Calculus and	Vishwa
		Perspective	ordinary	Prasad
		1	Differential	Rao
			Equations	Nao
10.	B24CS074	Taylor Series application in Signal	Differential	Dr. S.
10.	2210071	Processing Analysis	Calculus and	Vishwa
			ordinary	Prasad
			Differential	Rao
			Equations	Tuo
11.	B24CS075	Oscillations and Damping: Second-	Differential	Dr. S.
		Order Differential Equations in	Calculus and	Vishwa
		Spring-Mass Systems with Critical	ordinary	Prasad
		Damping	Differential	Rao
			Equations	Tuo
12.			Engineering	Dr. K.
12.	B24CS076	Smart Dustbin with Ultrasonic Sensor	Physics	Rajendra
	22105010	Zame z dotom with Chiubonic Benson	1 Try OICS	Prasad
13.			Engineering	Dr. K.
	B24CS077	Fire Detection and Alarm System	Physics	Rajendra
		- 110 2 cooling and 1 min by stein		Prasad
14.	B24CS078	Temperature Sensor using Thermistor	Engineering	Dr. K.
17.	22100070		Luguiccinig	D1, 11,

			Physics	Rajendra
				Prasad
15.	7.4.660.70		Engineering	Dr. K.
	B24CS079	Basic Calculator using software tool	Physics	Rajendra
				Prasad
16.			Engineering	Dr. K.
	B24CS080	Clap Switch	Physics	Rajendra
				Prasad
17.		Investigate the properties of permanent	Engineering	Dr. K.
	B24CS081	magnets and their applications	Physics	Rajendra
		The state of the s		Prasad
18.		Automatic Streetlight Control Using	Engineering	Dr. K.
	B24CS082	LDR and LED	Physics	Rajendra
		EDIX and LED		Prasad
19.		Simulation of Projectile Motion with	Engineering	Dr. K.
	B24CS083	software tool	Physics	Rajendra
		software tool		Prasad
20.		Build a simple electric circuit and	Engineering	Dr. K.
	B24CS084	_	Physics	Rajendra
		measure the voltage and current		Prasad
21.		Investigate the properties of	Engineering	Dr. K.
	B24CS085	semiconductors and analyze their	Physics	Rajendra
		applications in electronic devices		Prasad
22.		Investigate the physics of laser	Engineering	Dr. K.
	B24CS086	technology and study the properties and	Physics	Rajendra
		applications of different types of lasers	J	Prasad
23.		Minimizing Logical Circuits Using	Computer	M. Preethi
		Karnaugh Maps: A Study in Digital	Organization	
		Logic Simplification	and	
	B24CS087	20gic omirpimention	Architecture	
24.		Exploring Number Systems:	Computer	M. Preethi
		Techniques for Converting Between	Organization	
		Binary, Octal, Decimal, and	and	
		Hexadecimal	Architecture	
	B24CS088	Tiexadeciniai		
25.		Optimizing Multiplication:	Computer	M. Preethi
		Implementation and Analysis of	Organization	
		Booth's Algorithm	and	
	B24CS089	2001101111011111111	Architecture	
26.		Efficient Division in Processors:	Computer	M. Preethi
		Design and Evaluation of Division	Organization	
		Algorithms	and	
	B24CS090	1116011411110	Architecture	
27.		Building a Simple ALU (Arithmetic	Computer	M. Preethi
1		Logic Unit) Using Logic Gates	Organization	
			and	
	B24CS091		Architecture	
28.		Design and Implementation of an	Computer	M. Preethi
		Instruction Set with Direct	Organization	
			and	
	B24CS092	Addressing Modes	Architecture	
	22100072		<sup>1</sup> II CHICCIUIE	

20		Propabing Instruction Cinculator	Computor	M. Preethi
29.		Branching Instruction Simulator	Computer	M. Preetni
			Organization	
	B24CS093		and	
20	D24C3093	D: 11 1 (1)	Architecture	M.D. di
30.		Design and Implementation of an	Computer	M. Preethi
		Instruction Set with Indirect	Organization	
	D24CC004	Addressing Modes	and	
	B24CS094		Architecture	
31.		Simulation of Basic Flip-Flops: SR,	Computer	M. Preethi
		JK, D, and T	Organization	
	D24CC005		and	
	B24CS095		Architecture	
32.		Basic Pipeline Simulation: A	Computer	M. Preethi
		Simplified CPU Pipeline Model	Organization	
	De 4 CC 0 0 6		and	
	B24CS096		Architecture	
33.		Design and Implementation of a 3-	Computer	M. Preethi
		Stage Arithmetic Pipeline for	Organization	
	D2 / CCC 2 =	Integer Operations	and	
	B24CS097		Architecture	
34.	B24CS098	Alumni Networking Console	Programming	Dr. Vijay
		Application in C	for Problem	Kumar
			Solving with C	Polepally
35.	B24CS099	Console application for Counselling	Programming	Dr. Vijay
		Appointment System in C	for Problem	Kumar
			Solving with C	Polepally
36.	B24CS0100	Lottery Management System in C	Programming	Dr. Vijay
			for Problem	Kumar
			Solving with C	Polepally
37.	B24CS0101	Employee Payroll System	Programming	Dr. Vijay
			for Problem	Kumar
			Solving with C	Polepally
38.	B24CS0102	Console application for Voting	Programming	Dr. Vijay
		System in C language	for Problem	Kumar
			Solving with C	Polepally
39.	B24CS0103	Student Management System in C	Programming	Dr. Vijay
		•	for Problem	Kumar
			Solving with C	Polepally
40.	B24CS104	C console application for Library	Programming	Dr. Vijay
		Management System with basic	for Problem	Kumar
		operations	Solving with C	Polepally
41.	B24CS105	Banking System Simulation in C	Programming	Dr. Vijay
		language	for Problem	Kumar
			Solving with C	Polepally
42.	B24CS106	Weather Forecast console	Programming	Dr. Vijay
		Application in C	for Problem	Kumar
		rr ·····	Solving with C	Polepally
43.	B24CS107	Household Expense Tracker in C	Programming	Dr. Vijay
10.	22100107	Transcriota Expense Trucker in C	for Problem	Kumar
			Solving with C	Polepally
			DOIVING WILLI	1 orcpany

44.	B24CS108	Event Management System in C language	Programming for Problem Solving with C	Dr. Vijay Kumar Polepally
45.		Simulation of a given electrical	Basic Electrical	M.
		circuit to determine the current,	Engineering	Narasimha Rao
	B24CS109	voltage and power at a given		
	D24C3109	resistance using mesh analysis.		
		Verify the same with nodal		
		analysis.		
46.		Simulation by applying	Basic Electrical	M.
	P24CC110	superposition theorem for a given	Engineering	Narasimha Rao
	B24CS110	electrical network to determine the		
		current, voltage and power.		
47.		By using simulation verify the	Basic Electrical	M.
	D04CC111	Thevenin's theorem and determine	Engineering	Narasimha Rao
	B24CS111	the voltage and current across the		
		load.		
48.		Verify whether maximum power is	Basic Electrical	M.
	B24CS112	transferred to the load in a given	Engineering	Narasimha Rao
		circuit.		
49.	B24CS113	Measurement of 3-phase power for	Basic Electrical	M.
	D24C3113	a star or delta connected load.	Engineering	Narasimha Rao
50.	B24CS114	LED blink test using Arduino	Basic Electrical Engineering	M. Narasimha Rao
51.	B24CS115	Control of DC servo motor using	Basic Electrical	M.
	D24C3113	Arduino	Engineering	Narasimha Rao
52.	B24CS116	Arduino based traffic signal control	Basic Electrical Engineering	M. Narasimha Rao
53.	B24CS117	Light based street light controller	Basic Electrical	M. Narasimha
	D2TC011/	using Arduino	Engineering	Rao Rao
54.	B24CS118	Light intensity controller for an	Basic Electrical	M. Narasimha
	D21C0110	auditorium	Engineering	Rao
55.	B24CS119	Comparative Study of Dam Construction in	Environmental	Dr. H.
		Different Regions: Advantages	Studies	Ramesh Babu
56.	B24CS120	and Disadvantages  Deforestation: Ecological Impact of	Environmental	Dr. H.

		Deforestation and solutions	Studies	Ramesh Babu
57.	B24CS121	Sustainable Agriculture Practices: Investigation and Implementation	Environmental Studies	Dr. H. Ramesh Babu
58.	B24CS122	Development of a Sustainable Forest Management Plan for Timber Harvesting	Environmental Studies	Dr. H. Ramesh Babu
59.	B24CS123	Assessing the Impact of Agricultural Runoff on Water Quality in a Watershed	Environmental Studies	Dr. H. Ramesh Babu
60.	B24CS124	Social Impact of Dam Construction on Local Communities and Indigenous Peoples	Environmental Studies	Dr. H. Ramesh Babu
61.	B24CS125	Effective Forest Management: Sustainable Conservation Strategies	Environmental Studies	Dr. H. Ramesh Babu
62.	B24CS126	Investigation of Edge Effects on Biodiversity in Fragmented Habitats	Environmental Studies	Dr. H. Ramesh Babu
63.	B24CS127	Evaluation of Ecotourism Impacts on Biodiversity and Local Communities	Environmental Studies	Dr. H. Ramesh Babu
64.	B24CS128	Performance Evaluation of a Wastewater Treatment Plant: A Case Study	Environmental Studies	Dr. H. Ramesh Babu

Dr. S. Vishwa Prasad Rao (Signature of class teacher)