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 ECI section.

Section : 1

S. No.	Roll number of the student	Practicum topic allotted	Practicum under the course	Course faculty
1	B24CI001	Radius of convergence for power series using D'Alembert's ratio test	Differential Calculus and Ordinary Differential Equations (DCODE)	Dr. S. Vishwa Prasad Rao
2	B24CI002	Cauchy's Root Test in Probability Theory: Analyzing Random Variable Convergence	DCODE	Dr. S. Vishwa Prasad Rao
3	B24CI003	Real-World Applications of Rolle's Theorem in COVID-19 Analysis	DCODE	Dr. S. Vishwa Prasad Rao

4	B24CI004	The Role of Rolle's Theorem in Predicting Stock Market Trends	DCODE	Dr. S. Vishwa Prasad Rao
5	B24CI005	Error-Correcting Codes using Lagrange's mean value theorem	DCODE	Dr. S. Vishwa Prasad Rao
6	B24CI006	Optimizing algorithms in Machine Learning with Taylor Series	DCODE	Dr. S. Vishwa Prasad Rao
7	B24CI007	Design Optimization with Lagrange Multiplier Method: Minimizing Material Waste	DCODE	Dr. S. Vishwa Prasad Rao
8	B24CI008	AIDS Treatment Optimization: A First-Order Differential Equation Approach	DCODE	Dr. S. Vishwa Prasad Rao
9	B24CI009	Modeling Drug Distribution: A First-Order Differential Equation Approach	DCODE	Dr. S. Vishwa Prasad Rao
10	B24CI010	Sustainable Harvesting: First-Order Differential Equations in Renewable Resource Management	DCODE	Dr. S. Vishwa Prasad Rao
11	B24CI011	Shifting Perspectives: Second-Order DEs with Phase Shift Solutions	DCODE	Dr. S. Vishwa Prasad Rao
12	B24CI012	Emergency light cum advertising display board	Engineering Physics (EP)	Dr. Prashanth Kumar Vaidya
13	B24CI013	Smoke alarm made with sound generator (UM3562)	EP	Dr. Prashanth Kumar Vaidya
14	B24CI014	Counter with overload alert alarm for child safety in bus	EP	Dr. Prashanth Kumar Vaidya
15	B24CI015	Building a wireless call bell with basic electronic components	EP	Dr. Prashanth Kumar Vaidya
16	B24CI016	Automatic hand-wash timer	EP	Dr. Prashanth Kumar Vaidya
17	B24CI017	A simple audio amplifier with dual power source	EP	Dr. Prashanth Kumar Vaidya
18	B24CI018	GPS based trajectory for real time path tracking	EP	Dr. Prashanth Kumar Vaidya
19	B24CI019	Pressure regulation system for high and low air pressures	EP	Dr. Prashanth Kumar Vaidya
20	B24CI020	Low cost Tachometer	EP	Dr. Prashanth Kumar Vaidya
21	B24CI021	Simple automatic bathroom light	EP	Dr. Prashanth Kumar Vaidya
22	B24CI022	Finger sized portable voltmeter	EP	Dr. Prashanth Kumar Vaidya

23	B24CI023	Design a Resistance based Water level sensor	Electronic Measurements and Instrumentation (EMI)	Sri B.Shashikanth
24	B24CI024	Study the characteristics of PIR sensor using Lab VIEW	EMI	Sri B.Shashikanth
25	B24CI025	Study the characteristics of LDR sensor using Lab VIEW (car parking sensor)	EMI	Sri B.Shashikanth
26	B24CI026	Study the characteristics of IR sensor using Lab VIEW	EMI	Sri B.Shashikanth
27	B24CI027	Study the characteristics of Humidity sensor using Lab VIEW	EMI	Sri B.Shashikanth
28	B24CI028	Study the characteristics of Temperature sensor (thermistor) using Lab VIEW	EMI	Sri B.Shashikanth
29	B24CI029	Study the characteristics of Ultrasonic sensor using Lab VIEW	EMI	Sri B.Shashikanth
30	B24CI030	Study the characteristics of Rain sensor using Lab VIEW	EMI	Sri B.Shashikanth
31	B24CI031	Study the characteristics of Temperature sensor (RTD) using Lab VIEW	EMI	Sri B.Shashikanth
32	B24CI032	Study the characteristics of Temperature sensor (thermocouple) using Lab VIEW	EMI	Sri B.Shashikanth
33	B24CI033	Study the characteristics of optical sensor (photo diode) using Lab VIEW	EMI	Sri B.Shashikanth
34	B24CI034	Building a Calendar	Programming for Problem Solving with C (PPSC)	Sri B. Venu Maheshwar Rao
35	B24CI035	Build a Quiz Game	PPSC	Sri B. Venu Maheshwar Rao
36	B24CI036	Mini Voting System	PPSC	Sri B. Venu Maheshwar Rao
37	B24CI037	Cricket scoreboard	PPSC	Sri B. Venu Maheshwar Rao
38	B24CI038	Authentication System	PPSC	Sri B. Venu Maheshwar Rao
39	B24CI039	Snake Game	PPSC	Sri B. Venu Maheshwar Rao
40	B24CI040	Scientific Calculator	PPSC	Sri B. Venu Maheshwar Rao
41	B24CI041	Phonebook	PPSC	Sri B. Venu Maheshwar Rao

42	B24CI042	Bus reservation system	PPSC	Sri B. Venu Maheshwar Rao
43	B24CI043	Basic Unit Converter	PPSC	Sri B. Venu Maheshwar Rao
44	B24CI044	Food order management system	PPSC	Sri B. Venu Maheshwar Rao
45	B24CI045	Power factor improvement using capacitors	Basic Electrical Engineering (BEE)	Dr. P. Nagarjuna Reddy
46	B24CI046	Speed control of a DC motor using Pulse Width Modulation (PWM) using Arduino	BEE	Dr. P. Nagarjuna Reddy
47	B24CI047	Analysis of 1-phase full wave and half wave rectifier with different loads *(Simulation)*	BEE	Dr. P. Nagarjuna Reddy
48	B24CI048	Solar energy-based DC motor	BEE	Dr. P. Nagarjuna Reddy
49	B24CI049	Variable AC source for mini loads	BEE	Dr. P. Nagarjuna Reddy
50	B24CI050	Adjustable DC power supply for mini loads	BEE	Dr. P. Nagarjuna Reddy
51	B24CI051	Stepper motor speed control using Arduino	BEE	Dr. P. Nagarjuna Reddy
52	B24CI052	Home lighting system with motion sensor	BEE	Dr. P. Nagarjuna Reddy
53	B24CI053	Analysis of single-phase AC circuits for different loads *(Simulation)*	BEE	Dr. P. Nagarjuna Reddy
54	B24CI054	Overvoltage protection circuit	BEE	Dr. P. Nagarjuna Reddy
55	B24CI055	Solar-powered mobile charger	BEE	Dr. P. Nagarjuna Reddy
56	B24CI056	Investigation on suitable methods for air quality monitoring in residential areas	Environmental Studies (ES)	Dr. V. Sunil Kumar
57	B24CI057	Investigating the functioning of sewage water plant and its importance in conservation of water	ES	Dr. V. Sunil Kumar
58	B24CI058	Investigating the effective water conservation techniques in urban areas	ES	Dr. V. Sunil Kumar
59	B24CI059	Investigating organic farming methods as green initiative for global practice	ES	Dr. V. Sunil Kumar
60	B24CI060	Investigating heavy metal contamination in soil-adverse effects and preventive methods.	ES	Dr. V. Sunil Kumar

61	B24CI061	Investigating the waste disposal practices and suggesting improvements	ES	Dr. V. Sunil Kumar
62	B24CI062	Investigating the electronic waste disposal and recycling practices- E waste management	ES	Dr. V. Sunil Kumar
63	B23CI030	Exploring the biogas energy and its applications	ES	Dr. V. Sunil Kumar
64	B23CI038	Exploring Sustainable Agriculture Practices: Green Poly House	ES	Dr. V. Sunil Kumar
65	B23CI052	Assessing soil contamination in Industrial areas and its preventive methods	ES	Dr. V. Sunil Kumar

(Signature of class teacher)
Dr. Prashanth Kumar Vaidya