

*Sub: II 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 II semester students of 2CSO section.

*Section : 1*

S. No.	Roll number of the student	Practicum topic allotted	Practicum under the course	Course faculty
1	B24IN001	Simulation of Projectile Motion with software tool	EP	Dr. K. Rajendra Prasad
2	B24IN002	Build a simple electric circuit and measure the voltage and current	EP	Dr. K. Rajendra Prasad
3	B24IN003	Automatic Streetlight Control Using LDR and LED	EP	Dr. K. Rajendra Prasad
4	B24IN004	Fire Detection and Alarm System	EP	Dr. K. Rajendra Prasad
5	B24IN005	Investigate the properties of permanent magnets and their applications	EP	Dr. K. Rajendra Prasad

6	B24IN006	Investigate the properties of semiconductors and analyze their applications in electronic devices	EP	Dr. K. Rajendra Prasad
7	B24IN007	Investigate the physics of laser technology and study the properties and applications of different types of lasers	EP	Dr. K. Rajendra Prasad
8	B24IN008	Clap Switch	EP	Dr. K. Rajendra Prasad
9	B24IN009	Basic Calculator using software tool	EP	Dr. K. Rajendra Prasad
10	B24IN010	Temperature Sensor using Thermistor	EP	Dr. K. Rajendra Prasad
11	B24IN011	Smart Dustbin with Ultrasonic Sensor	EP	Dr. K. Rajendra Prasad
12	B24IN012	Basic Functional Units Simulation	CAO	Dr. V. Shankar
13	B24IN013	Boolean Function Complement Calculator	CAO	Dr. V. Shankar
14	B24IN014	Arithmetic Operation Visualizer	CAO	Dr. V. Shankar
15	B24IN015	I/O Interface Design	CAO	Dr. V. Shankar
16	B24IN016	DMA Controller Implementation	CAO	Dr. V. Shankar
17	B24IN017	Fault Tolerance in Basic Processing Units: Design and Implementation	CAO	Dr. V. Shankar
18	B24IN018	Customizing an Instruction Set for Optimized Floating Point Operations	CAO	Dr. V. Shankar
19	B24IN019	Simulating the Effect of Different Number Systems on Arithmetic Performance	CAO	Dr. V. Shankar
20	B24IN020	Implementing Arithmetic Operations Using Logic Gates and Flip-Flops	CAO	Dr. V. Shankar
21	B24IN021	Implementing Memory Allocation Strategies in an Operating System	CAO	Dr. V. Shankar
22	B24IN022	Evaluate performance of Booths algorithm using a simulator	CAO	Dr. V. Shankar
23	B24IN023	Product Order and Inventory Management System	DS	Dr. B. Sridhara Murthy
24	B24IN024	Memory Management System Using Dynamic Allocation	DS	Dr. B. Sridhara Murthy
25	B24IN025	Media Collection Organizer	DS	Dr. B. Sridhara Murthy
26	B24IN026	Password Authentication System	DS	Dr. B. Sridhara Murthy
27	B24IN027	Browser History Navigation System	DS	Dr. B. Sridhara Murthy
28	B24IN028	Undo-Redo Controller	DS	Dr. B. Sridhara Murthy
29	B24IN029	Leaderboard Management System	DS	Dr. B. Sridhara Murthy
30	B24IN030	Round Robin CPU Scheduling Simulation	DS	Dr. B. Sridhara Murthy
31	B24IN031	ExpressionAnalyzer	DS	Dr. B. Sridhara Murthy
32	B24IN032	Simulation of LRU Cache Implementation	DS	Dr. B. Sridhara Murthy
33	B24IN033	Event Scheduling Application	DS	Dr. B. Sridhara Murthy



34	B24IN034	Temperature Based Fan Speed Controller using Arduino	BEE	Dr. P. Nagarjuna Reddy
35	B24IN035	Analysis of AC circuits for different loads	BEE	Dr. P. Nagarjuna Reddy
36	B24IN036	Speed Control of a DC Motor Using Pulse Width Modulation (PWM) using Arduino	BEE	Dr. P. Nagarjuna Reddy
37	B24IN037	Stepper Motor Speed Control Using Arduino	BEE	Dr. P. Nagarjuna Reddy
38	B24IN038	Design of Variable AC source for mini loads	BEE	Dr. P. Nagarjuna Reddy
39	B24IN039	Simple DC power supply	BEE	Dr. P. Nagarjuna Reddy
40	B24IN040	Solar energy-based DC motor	BEE	Dr. P. Nagarjuna Reddy
41	B24IN041	Analysis of 1-phase full wave and half wave rectifier for different loads	BEE	Dr. P. Nagarjuna Reddy
42	B24IN042	Basic Home Lighting System with Motion Sensor	BEE	Dr. P. Nagarjuna Reddy
43	B24IN043	LED Street Lights with Auto Intensity Control	BEE	Dr. P. Nagarjuna Reddy
44	B24IN044	Solar-Powered Mobile Charger	BEE	Dr. P. Nagarjuna Reddy
45	B24IN045	Investigating the waste disposal practices and suggesting improvements.	ES	Dr. V. Sunil Kumar
46	B24IN046	Innovative biogas system prototype for waste-to-energy conversion and its applications.	ES	Dr. V. Sunil Kumar
47	B24IN047	Investigating Electronic Waste Disposal and Recycling Practices: A Study on E-Waste Management	ES	Dr. V. Sunil Kumar
48	B24IN048	Investigating the effective water conservation techniques in urban areas.	ES	Dr. V. Sunil Kumar
49	B24IN049	Exploring renewable energy sources - solar energy and its applications.	ES	Dr. V. Sunil Kumar
50	B24IN050	Exploring on soil contamination in Industrial areas and its preventive methods.	ES	Dr. V. Sunil Kumar
51	B24IN051	Conversion of dry leaves and plant waste into biogas for on-campus Energy needs.	ES	Dr. V. Sunil Kumar
52	B24IN052	Investigation on suitable methods for air quality monitoring in residential areas	ES	Dr. V. Sunil Kumar
53	B24IN053	Investigation on sustainable agriculture practices: Green Poly House.	ES	Dr. V. Sunil Kumar
54	B24IN054	Application of Matrix theory to Analyze a Electrical Circuit.	MTVC	Dr. R. Ramesh
55	B24IN055	Population Dynamics: Analyzing the Growth of a Population using Eigen values and Eigen vectors	MTVC	Dr. R. Ramesh
56	B24IN056	Modelling Population Growth using Markov Chains and Matrices	MTVC	Dr. R. Ramesh
57	B24IN057	Application of Markov Chains and Matrices for Predicting Weather Patterns.	MTVC	Dr. R. Ramesh
58	B24IN058	Analyzing a Communication Network using Markov Chains and Matrices	MTVC	Dr. R. Ramesh

59	B24IN059	Application of Eigen values and Eigen vectors to find the steady-state distribution of a Markov chain.	MTVC	Dr. R. Ramesh
60	B24IN060	Leslie Matrix Model-Application of Eigen values and Eigen vectors to analyze the growth or decline of populations.	MTVC	Dr. R. Ramesh
61	B24IN061	Water Quality Analysis:-Calculating the Concentration of Pollutants using Double Integrals	MTVC	Dr. R. Ramesh
62	B24IN062	Application of Triple integral to find the volume of a region.	MTVC	Dr. R. Ramesh
63	B24IN063	Climate Modelling-Application of Vector Differentiation to Analyze the Temperature Gradient	MTVC	Dr. R. Ramesh
64	B24IN064	Application of Line integral for modelling Cardiovascular:-Line Integral of the Blood Flow Field around a Closed Loop.	MTVC	Dr. R. Ramesh

V. Sunil kumar

(Signature of class teacher)  
Dr. Dr. V. Sunil Kumar