KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-15

DEPARTMENT OF PS AND M&H

No. SEM-II /PS/M&H/KITS/2025 Date: 27/01/2025

CIRCULAR

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

Allotment of Practicum topics to students

Section : 2CSD2

S.No.	Roll number of the student	Practicum topic allotted	Practicum under the course	Course faculty
1	B24DS065	Smart Dustbin with Ultrasonic Sensor	U24PY202B [EP]	Dr.K.Rajendra Prasad
2	B24DS066	Temperature Sensor using Thermistor	U24PY202B [EP]	Dr.K.Rajendra Prasad
3	B24DS067	Investigate the properties of semiconductors and analyze their applications in electronic devices	U24PY202B [EP]	Dr.K.Rajendra Prasad
4	B24DS068	Clap Switch	U24PY202B [EP]	Dr.K.Rajendra Prasad
5	B24DS069	Basic Calculator using software tool	U24PY202B [EP]	Dr.K.Rajendra Prasad
6	B24DS070	Fire Detection and Alarm System	U24PY202B [EP]	Dr.K.Rajendra Prasad
7	B24DS071	Automatic Streetlight Control Using LDR and LED	U24PY202B [EP]	Dr.K.Rajendra Prasad
8	B24DS072	Investigate the properties of permanent magnets and their applications	U24PY202B [EP]	Dr.K.Rajendra Prasad
9	B24DS073	Investigate the physics of laser technology and study the properties and applications of different types of lasers	U24PY202B [EP]	Dr.K.Rajendra Prasad
10	B24DS074	Build a simple electric circuit and measure the voltage and current	U24PY202B [EP]	Dr.K.Rajendra Prasad

11	B24DS075	Simulation of Projectile Motion with software tool	U24PY202B [EP]	Dr.K.Rajendra Prasad
12	B24DS076	To design and implement a software application that converts numbers between different systems: binary, octal, decimal, and hexadecimal	U24DS203 [COA]	N.Haritha
13	B24DS077	To analyze and measure the performance impact of different addressing modes on CPUexecution time in assembly programs	U24DS203 [COA]	N.Haritha
14	B24DS078	Simulate a word multiplier.	U24DS203 [COA]	N.Haritha
15	B24DS079	Simulate a word divider.	U24DS203 [COA]	N.Haritha
16	B24DS080	Suggest a high speed addition method and logic for 4-bit addition.	U24DS203 [COA]	N.Haritha
17	B24DS081	Simulate Temperature Controlling Fan.	U24DS203 [COA]	N.Haritha
18	B24DS082	To simulate and analyze the performance of different cache memory configurations (direct-mapped, associative, and fully associative caches) and their impact on CPU performance.	U24DS203 [COA]	N.Haritha
19	B24DS083	To analyze the performance of Quantum computers.	U24DS203 [COA]	N.Haritha
20	B24DS084	Simulate voice controlling car	U24DS203 [COA]	N.Haritha
21	B24DS085	Simulate modern traffic control system.	U24DS203	N.Haritha

			[COA]	
22	B24DS086	Simulate Attendance recorder	U24DS203 [COA]	N.Haritha
23	B24DS087	Patient Management System	U24DS204 [DS]	I. Sai Rama Krishna
24	B24DS088	Rock-Paper-Scissors Game	U24DS204 [DS]	I.Sai Rama Krishna
25	B24DS089	Grocery Billing System	U24DS204]DS]	I.Sai Rama Krishna
26	B24DS090	Job Application Tracker	U24DS204 [DS]	I.Sai Rama Krishna
27	B24DS091	Vehicle Service Management System	U24DS204 [DS]	I.Sai Rama Krishna
28	B24DS092	Gym Membership Management System	U24DS204 [DS]	I.Sai Rama Krishna
29	B24DS093	Expense Tracker	U24DS204 [DS]	I.Sai Rama Krishna
30	B24DS094	Food Delivery Management System	U24DS204 [DS]	I.Sai Rama Krishna
31	B24DS095	Course Registration System	U24DS204 [DS]	I.Sai Rama Krishna
32	B24DS096	Task Management System	U24DS204 [DS]	I.Sai Rama Krishna

33	B24DS097	Restaurant Billing System	U24DS204 [DS]	I.Sai Rama Krishna
34	B24DS098	Verification of nodal analysis using MATLAB	U24EE205B [BEE]	Prof. C. Venkatesh
35	B24DS099	Verification of Superposition theorem using MATLAB	U24EE205B [BEE]	Prof. C. Venkatesh
36	B24DS100	Verification of Maximum Power Transfer theorem using MATLAB	U24EE205B [BEE]	Prof. C. Venkatesh
37	B24DS101	Measurement of 3-phase power for a star or delta connected load	U24EE205B [BEE]	Prof. C. Venkatesh
38	B24DS102	Analysis of half-wave and full-wave rectifier	U24EE205B [BEE]	Prof. C. Venkatesh
39	B24DS103	LED blink test using Arduino	U24EE205B [BEE]	Prof. C. Venkatesh
40	B24DS104	Control of DC servo motor using Arduino	U24EE205B [BEE]	Prof. C. Venkatesh
41	B24DS105	Arduino based traffic signal control	U24EE205B [BEE]	Prof. C. Venkatesh
42	B24DS106	Light based street light controller using Arduino	U24EE205B [BEE]	Prof. C. Venkatesh
43	B24DS107	Light intensity controller for an auditorium	U24EE205B [BEE]	Prof. C. Venkatesh
44	B24DS108	Efficiency calculation of a transformer	U24EE205B [BEE]	Prof. C. Venkatesh

45	B24DS109	Exploration of the Food Chain in a Pond Ecosystem	U24CY206 [ES]	Dr.D.Praveena
46	B24DS110	Aesthetic Value of Biodiversity in Ecotourism	U24CY206 [ES]	Dr.D.Praveena
47	B24DS111	Sustainable Agricultural Practices: The Role of Green Poly houses	U24CY206 [ES]	Dr.D.Praveena
48	B24DS112	Exploration of Composting and Vermi composting Techniques	U24CY206 [ES]	Dr.D.Praveena
49	B24DS113	Awareness of the Implementation of Rainwater Harvesting Pits	U24CY206 [ES]	Dr.D.Praveena
50	B24DS114	Investigation of Terrace Gardening in Organic Farming	U24CY206 [ES]	Dr.D.Praveena
51	B24DS115	Investigation of Solid Waste Management: Land filling Practices	U24CY206 [ES]	Dr.D.Praveena
52	B24DS116	Evaluation of Solar Power Energy Systems Implementation	U24CY206 [ES]	Dr.D.Praveena
53	B24DS117	Analysis of Climate Change Impacts and Biodiversity Loss in Sanctuaries	U24CY206 [ES]	Dr.D.Praveena
54	B24DS118	Apply matrices to data analysis tasks, such as principal component analysis (PCA), singular value decomposition (SVD), and linear regression.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao
55	B24DS119	Study the application of matrices to network analysis, including the computation of network centrality measures and the analysis of network structure.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao

56	B24DS120	Investigate the use of multiple integrals in computer graphics, including the rendering of 3D scenes.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao
57	B24DS121	Implement numerical integration techniques, such as Simpson's rule or Gaussian quadrature, to approximate multiple integrals.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao
58	B24DS122	Explore the application of vector differentiation in machine learning algorithms, such as neural networks and deep learning.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao
59	B24DS123	Use vector differentiation to optimize multi variable functions, with applications in machine Learning and engineering.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao
60	B24DS124	Investigate the use of Sylvester's theorem in data mining, including the analysis of large datasets.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao
61	B24DS125	Examine the role of vector calculus in data analysis, including applications in data visualization, dimensionality reduction, and clustering.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao
62	B24DS126	Study the application of Stokes' Theorem to Computer-Aided Design (CAD) problems, including the calculation of surface areas and volumes.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao
63	B24DS127	Investigate the use of vector calculus in computer science, including applications in computer graphics, machine learning, and robotics.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao
64	B24DS128	Implement numerical methods to compute gradient, divergence, and curl of vector fields using programming languages like Python, MATLAB, or R.	U24MH201 [MTVC]	Dr. T. Raghunatha Rao

Note:

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

D Praveena
(Dr. D. Praveena)
(Signature of class teacher)

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