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: IL Semester -Allotment of Practicum topics– Reg.

Allotment of Practicum topics to students

Section : 2ECE 2

S. No.	Roll number of the student	Practicum topic allotted	Practicum under the course	Course faculty
1	B24EC065	Comparative Study of Hardness Removal Techniques in Water: Ion Exchange vs. Chemical Precipitation	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
2	B24EC066	Investigation of the Relationship Between Alkalinity and Hardness in Groundwater and Surface Water Samples	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
3	B24EC067	Conductometric Titration of Acetic Acid in Chloroform with Sodium Hydroxide: An Investigation in Non-Aqueous Media	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
4	B24EC068	Analysis of Water Contaminants in Industrial Effluents: Total Suspended Solids (TSS), BOD, COD	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
5	B24EC069	Potentiometric Titration of Strong Acid with Strong Base: Determination of Equivalence Point Using pH Measurement	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
	B24EC070	Evaluation of Reverse Osmosis as a Water Treatment Method for Desalination: Process Design and Water Quality	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
	B24EC072	Study of the Effect of Hard Water on Domestic Appliances and Plumbing: Corrosion and Scaling	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
	B24EC073	Comparative Study of Desalination Techniques: Reverse Osmosis vs. Electrodialysis for Water Purification	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
	B24EC074	Study of Irrigation Water Treatment Techniques for Removal of Pesticides and Fertilizers	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
	B24EC075	Investigation of Wastewater Reuse for Agricultural Irrigation: Challenges and Solutions	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna

	B24EC076	Study of Complexometric Titration of Calcium with EDTA: Conductometric Method for Metal Ion Quantification	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
63	B24EC077	Evaluation of Water Quality Parameters for Potable Water: pH, TDS, Hardness, and Chloride Levels	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
64	B24EC078	Performance Evaluation of Chlorination and UV Treatment for Drinking Water Disinfection	U24CY202E Engineering Chemistry	Dr. M. Gopi Krishna
65	B24EC079	Study and Implementation of a Half-Wave Rectifier Circuit	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC080	Design and Performance Evaluation of a Full-Wave Rectifier Circuit	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC081	Design and Performance Testing of a π-Section Filter in Rectifier Circuits	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC082	Design and Characterization of Shunt Diode Clipper Circuits	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC083	Implementation of Clipping at Two Independent Levels Using Diodes	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC084	Implementation and Analysis of Fixed Bias Circuit for Transistor Amplifiers	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC085	Design and Performance Evaluation of a Collector to Base Bias Circuit	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC086	Design, Analysis, and Testing of Self-Bias Circuit	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC087	Study and Analysis of Drain and Transfer Characteristics of JFET	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC088	Implementation and Performance Evaluation of Self-Bias Configuration for FETs	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC089	Measurement and Calculation of h-parameters for Transistors in CE, CB, and CC Configurations	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC090	Analysis and Performance of Common Emitter (CE) Amplifier	U24EC203 Electronic Circuits	Dr. M.Raju
	B24EC091	Design and Analysis of Common Collector (CC) Amplifier: Voltage Gain and Input Impedance	U24EC203	Dr. M.Raju

			Electronic Circuits	
	B24EC092	Hospital Management System	U24EC204 DSC	S.Pradeep Kumar
	B24EC093	Library Automation System	U24EC204 DSC	S.Pradeep Kumar
	B24EC094	Public Transport System	U24EC204 DSC	S.Pradeep Kumar
	B24EC095	Cricket Score Board	U24EC204 DSC	S.Pradeep Kumar
	B24EC096	Online Voting System	U24EC204 DSC	S.Pradeep Kumar
	B24EC097	Plagiarism detection system	U24EC204 DSC	S.Pradeep Kumar
	B24EC098	Building a crossword puzzle game	U24EC204 DSC	S.Pradeep Kumar
	B24EC099	Online Food Delivery System	U24EC204 DSC	S.Pradeep Kumar
	B24EC100	Citizen Grievance System	U24EC204 DSC	S.Pradeep Kumar
	B24EC101	Banking Management System	U24EC204 DSC	S.Pradeep Kumar
	B24EC102	School Admission System	U24EC204 DSC	S.Pradeep Kumar
	B24EC103	Water Supply Management	U24EC204 DSC	S.Pradeep Kumar
	B24EC104	Blood Bank Management	U24EC204 DSC	S.Pradeep Kumar
	B24EC105	Exploring Life Lessons in Edgar A. Guest poem "Don't Quit"	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC106	Role of News Papers in developing communication skills among the students	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC107	Exploring the Significance of "Folk Dances" with a special focus on Koodiyattam dance form of Kerala	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC108	The impact of cinema on the youth	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC109	Exploring traditional music with a specific focus on Hindustani music	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC110	Exploring the Unique Wedding Rituals in India with a specific focus on Northern region	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC111	"Seasons of Gratitude": A Comparative Study of Harvest Festivals in India.	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC112	Exploring the Evolution and Cultural Significance of "Western Musical Instruments"	U24MH205 ECRW	Dr.W. Grace Shanthi

	B24EC113	The Study of the Cultural Heritage and Craftsmanship behind Kanchipuram sarees of Tamil Nadu state	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC114	The role of Traditional Art forms in safeguarding Cultural Heritage with specific focus on Kalamkari painting and Phad painting	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC115	The role of Gamification in enhancing English Language Skills.	U24MH205 ECRW	Dr.W. Grace Shanthi
	B24EC116	Apply matrices to implement image processing techniques, such as filtering, convolution, and transformation.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC117	Study the design and implementation of algorithms for sparse matrix operations, including multiplication, inversion, and eigenvalue computation.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC118	Apply multiple integrals to solve optimization problems, such as finding the maximum or minimum of a function subject to constraints.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC119	Investigate the use of multiple integrals to model economic systems, including the calculation of consumer and producer surplus.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC120	Explore the application of vector differentiation in computer vision, including image processing and object recognition.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC121	Study the application of vector differentiation in electromagnetism, including the Maxwell's equations.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC122	Apply divergence and curl to image processing tasks, such as image filtering, edge detection, and image segmentation.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC123	Investigate the use of change of order of integration in medical imaging problems, including the reconstruction of images from tomographic data.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC124	Study vector differentiation to optimize multivariable functions, with applications in machine Learning and engineering.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC125	Study the application of divergence and curl to electromagnetism, including the calculation of electric and magnetic fields.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC126	Explore the use of surface integrals in machine learning, including the	U24MH201 MTVC	Dr.T. Raghunatha Rao

		development of new algorithms and models for image and signal processing.		
	B24EC127	Investigate the use of the Cayley-Hamilton theorem in the analysis of Markov chains, including the calculation of steady-state probabilities.	U24MH201 MTVC	Dr.T. Raghunatha Rao
	B24EC128	Explore the use of Green's Theorem in complex systems, including the analysis of biological and social networks.	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.

(Signature of class teacher)

Dr. Grace Shanthi

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