Remedial Classes
2023-24
Phase -I

Department of Mechanical Engineering

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Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)
Department of Mechanical Engineering
Remedial Classes Schedule for II & III B. Tech Students
(2/1/2024 to 12 Jan 2024)
AY: 2023-24

Phase-I
TIME TABLE

Room No:4302

Timings: 3:00 to 4:00pm

S.No	Subject	Year	Name of the Faculty	Session1	Session2	Session3	Session4
1	Fluid Mechanics and Fluid Machines	II	Mr B CH Nookaraju	2/1/2024 (4302)	3/1/2024 (4302)	4/1/2024 (4302)	5/1/2024 (4302)
2	Probability and Statistics	II	Dr V N Ramadevi	8/1/2024 (4302)	9/1/2024 (4302)	10/1/2024 (4302)	11/1/2024 (4302)

HOD
3/1/24
(Dr. A Anitha Lakshmi)

Head of the Department
Mechanical Engineering
GOKARAJU RANGARAJU
Institute of Engineering and Technology
Hyderabad-500

Dean Finishing School
(Dr J.Sridevi)

Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)
Department of Mechanical Engineering
Remedial Classes Schedule for II & III B. Tech Students
(2/1/2024 to 12 Jan 2024)
AY: 2023-24

Phase-I
LIST OF STUDENTS

Sl	Roll No	Subject Name	Subject Code
1	22245A0301		
2	21241A0320		
3	21241A0342		
4	21241A0313		
5	21241A0339		
6	21241A0333		
7	21241A0304		
8	21241A0326		
9	21241A0319		
10	21241A0341		
11	21241A0338	Probability and Statistics	GR20A2005
12	21241A0305		
13	21241A0331		
14	22245A0314		
15	21241A0302		
16	21241A0325		
17	21241A0337		
18	2224SA0311		
19	21241A0310		
20	21241A0345		
21	21241A0329		

HOD
(Dr A. Amutha Lakshmi)
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GOKARAJU RANGARAJU
INSTITUTE OF ENGINEERING AND TECHNOLOGY

PROBABILITY AND STATISTICS
Course Code: GR20A2005 L/T/P/C: 3/0/0/3
II Year II Semester

Unit I: Random Variables, Basic Statistics, Correlation and Regression
Notion of Randomness, Random Experiment, Random variables – Discrete and Continuous, Probability mass function and density function, constants of r.v.s (Mean, Variance, Monents about mean), Concept of Bivariate distributions and Covariance.
Measures of central tendency and moments.
Correlation : Karl-Pearson's correlation coefficient and Spearman's Rank correlation, Statements of their properties and problems, Simple and Multiple Linear Regression (three variables case only), Statements of properties of Regression coefficients and problems.

Unit II: Probability Distributions
Discrete Distributions: Binomial and Poisson distributions - definition, real life examples, Statements of their Mean and Variance, related problems, evaluation of statistical parameters.
Continuous Distributions: Normal, Exponential and Gamma distributions - definition, real life examples, Statements of their Mean and Variance and related problems, evaluation of statistical parameters for Normal distribution.

Unit III : Testing of Hypothesis-1 (Large sample)
Concept of Sampling distribution and Standard error, tests for single proportion, difference of proportions, single mean, difference of means and Chi-square test for independence of attributes. Estimation of confidence interval for population mean and population proportions.

Unit IV : Testing of Hypothesis-2 (Small Sample)
Tests for single mean, difference of means, Population variance, ratio of variances, ANOVA 1-way and 2-way. Estimation of confidence interval for Population mean.

Unit V: Time Series analysis
Components of Time series, Additive and Multiplicative Decomposition of Time series components, Measuring trend by method of Moving averages, Straight line and Second degree parabola, Measuring seasonal variation by Ratio to Trend method and Ratio to Moving averages method.

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

Faculty Report on Subject
(Topics covered)
Subject: PROBABILITY AND STATISTICS

UNIT I:
- **Random Variables, Basic Statistics,**
- **Correlation and Regression**

UNIT II: DC MACHINES AND AC MACHINES
- **Discrete Distributions: Binomial and Poisson distributions - definition,**
- **real life examples**

UNIT III: TRANSFORMERS AND INSTRUMENTS
- **Concept of Sampling distribution and Standard error,**
- **tests for single proportion, difference of proportions,**
- **single mean, difference of means**

UNIT IV: DIODE AND IT'S CHARACTERISTICS
- **Tests for single mean, difference of means, Population variance, ratio of variances, ANOVA**
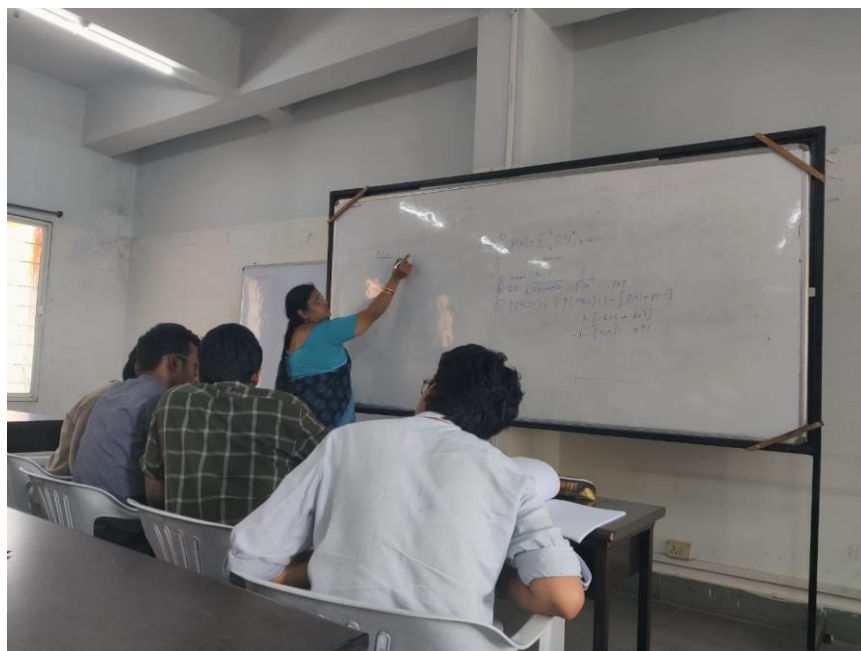- **1-way and 2-way. Estimation of confidence interval for Population mean**

UNIT V: TRANSISTORS
- **Measuring seasonal variation by Ratio to Trend method**
- **and Ratio to Moving averages method.**

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

IMAGES OF CLASSES TAKEN
PROBABILITY AND STATISTICS

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

ATTENDENCE CUM RESULT TABLE
PROBABILITY AND STATISTICS

S.NO	Roll.N0	8/1/2024	9/1/2024	10/1/2024	11/1/2024	Result
1	22245A0301	P	P	P	A	Pass
2	21241A0320	P	P	P	P	Fail
3	21241A0342	A			P	Pass
4	21241A0313			P	P	Fail
5	21241A0339		P		P	Fail
6	21241A0333	A	P		P	Fail
7	21241A0304			P	P	Fail
8	21241A0326		P	P	P	Fail
9	21241A0319	A	P		P	Fail
10	21241A0341	A			P	Fail
11	21241A0338			P	P	Fail
12	21241A0305		P		P	Fail
13	21241A0331	A	P	P	P	Fail
14	22245A0314	A	P		P	Fail
15	21241A0302		P		P	Pass
16	21241A0325	P	P	P	A	Fail
17	21241A0337	P	P	P	P	Fail
18	22245A0311	A			P	Fail
19	21241A0310			P	P	Fail
20	21241A0345		P		P	Fail
21	21241A0329	A	P		P	Fail

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY

FINISHING SCHOOL

REMEDIAL CLASSES (Academic support for students) Student Feed Back

Branch: H&S   Year: II   Sem: II

Subject: PROBABILITY AND STATISTICS

Faculty Name: Dr NagaRamadevi

S.No	Item	Feedback
1	Material presented	✓Excellent/Very Good/Good/Average/Below Average
2	Teaching Clarity	✓Excellent/Very Good/Good/Average/Below Average
3	Covering of important topics	Excellent/✓Very Good/Good/Average/Below Average
4	Doubts clarification	Excellent/✓Very Good/Good/Average/Below Average

Suggestions:

Dean Finishing School
(Dr J.Sridevi)

Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)
Department of Mechanical Engineering
Remedial Classes Schedule for II & III B. Tech Students
(2/1/2024 to 12 Jan 2024)
AY: 2023-24

Phase-I
LIST OF STUDENTS

Sl	Roll No	Subject Name	Subject code
1	22245A0312		
2	21241A0305		
3	21241A0331		
4	22245A0314		
5	21241A0302	Fluid Mechanics and Fluid Machines	GR20A2046
6	21241A0325		
7	21241A0337		
8	22245A0311		
9	21241A0310		
10	21241A0345		
11	21241A0329		

HOD 29/12/23

(Dr. A Amitha Lakshmi)

Head of the Department
Mechanical Engineering
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Bachupally, Hyderabad-500 ---

Dean Finishing School
(Dr J.Sridevi)

GOKARAJU RANGARAJU
INSTITUTE OF ENGINEERING AND TECHNOLOGY
FLUID MECHANICS AND FLUID MACHINES
CourseCode: GR20A2046 L/T/P/C: 3/0/0/3
II Year II Semester

Course Objectives:
1. Explain the Concept and application of mass and momentum conservation laws for fluid flows
2. Understand the importance of dimensional analysis
3. Obtain the velocity and pressure variations in various types ofsimple flows
4. Analyze the flow in water pumps and turbines
5. Study and apply the Energy conservation laws for fluid flow applications

Course Outcomes:
1. Apply concept of mathematics, science and engineering in fluid flows
2. Use the governing equations of fluid flow and apply the same to simple flow problems
3. Explain the mathematical formulation of various flow problems.
4. Analyze the boundary layer concept to the fluid flow problems.
5. Execute the concept of fluid and models of fluids for flow problems.

UNIT I
Definition of fluid, Newton's law of viscosity, Units and dimensions- Properties of fluids, mass density, specific volume, specific gravity, viscosity, compressibility and surface tension, Control volume- application of continuity equation and momentum equation, Incompressible flow, Bernoulli's equation and its applications.

UNIT II
Exact flow solutions in channels and ducts, Couette and Poiseuille flow, laminar flow through circular conduits and circular annuli-concept of boundary layer– measures of boundary layer thickness–Darcy Weisbach equation, friction factor, Moody's diagram.

UNIT III
Need for dimensional analysis–methods of dimension analysis–Similitude–types of similitude Dimensionless parameters–application of dimensionless parameters–Model analysis.

UNIT IV
Euler's equation–theory of roto dynamic machines–various efficiencies–velocity components at entry and exit of the rotor, velocity triangles–Centrifugal pumps, working principle, work done by the impeller, performance curves–Cavitation in pumps-Reciprocating pump–working principle.

UNIT V
Classification of water turbines, heads and efficiencies, velocity triangles-Axial, radial and mixed flow turbines- Pelton wheel, Francis turbine and Kaplan turbines, working principles–draft tube-Specific speed, unit quantities, performance curves for turbines–governing of turbines.

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

Faculty Report on
(Topics covered)
FLUID MECHANICS AND FLUID MACHINES

UNIT I
- Definition of fluid, Newton's law of viscosity, Units and dimensions-Properties of fluids, mass density,
- specific volume, specific gravity, viscosity, compressibility and surface tension,

UNIT II
- Exact flow solutions in channels and ducts,
- Couette and Poiseuille flow, laminar flow through circular conduits

UNIT III
- Need for dimensional analysis–methods of dimension analysis–Similitude–types of similitude

UNIT IV
- Euler's equation–theory of roto dynamic machines–various efficiencies–velocity componentsprinciple.

UNIT V
- Classification of water turbines, heads and efficiencies,
- velocity triangles-Axial, radial turbines.

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

FLUID MECHANICS AND FLUID MACHINES

ATTENDENCE CUM RESULT TABLE

S.NO	Roll.N0	2/1/2024	3/1/2024	4/1/2014	5/1/2024	Result
1	22245A0312	A	A	A	P	Fail
2	21241A0305	P	P	P	P	Pass
3	21241A0331	A	A	A	P	Fail
4	22245A0314	P	P	A	P	Fail
5	21241A0302	P	P	A	P	Fail
6	21241A0325	A	A	A	P	Fail
7	21241A0337	A	P	P	P	Fail
8	22245A0311	P	A	A	A	Fail
9	21241A0310	P	A	P	P	Fail
10	21241A0345	P			P	Fail
11	21241A0329	P	A	A	A	Fail

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

IMAGES OF CLASSES TAKEN

Subject: FLUID MECHANICS AND FLUID MACHINES

Faculty: Prof BCH Nookaraju

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY

FINISHING SCHOOL

REMEDIAL CLASSES (Academic support for students) Student Feed Back

Branch: MECH Year: II Sem: II

Subject: FLUID MECHANICS AND FLUID MACHINES

Faculty Name: Prof BCH Nookaraju

S.No	Item	Feedback
1	Material presented	✓Excellent/Very Good/Good/Average/Below Average
2	Teaching Clarity	✓Excellent/Very Good/Good/Average/Below Average
3	Covering of important topics	Excellent/✓Very Good/Good/Average/Below Average
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Suggestions:

Dean Finishing School
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GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

<u>Report on Remedial Classes</u>

This is to inform you that Finishing school of GRIET is conducting Remedial classes for B.Tech. II year, II Sem students to clear their backlogs.

Details are

1. Remedial classes are conducted in different Subjects to support the students in clearing their backlogs. As the first step, classes are held for Final year and marched out batches in three different schedules. Students were informed through SMS. Students shown lot of interest .Faculty gave tips as well as material for the students.80-90% of the students who have attended got benefit and they passed in the exams.

2. The classes are aimed to help the students having a maximum of threebacklogs so that they will get the degree as per their academic calendar. Students preferred material and few tips as they were busy in Projects. For some subjects they came and attentive.

3. The sessions for II & III-year students are to prevent failure rate and thereby increasing transition rate. The subjects are selected based on I-semester results. To increase attendance for the classes a brief motivation lecture is organized with the key note address by HOD.

   The following shows the courses for which Remedial classes are held and the Transition rate in such course:

S.No	Course	No.of students attended	No.of students passed	Transition rate
1.	PROBABILITY AND STATISTICS	21	3	14.28%
2.	FLUID MECHANICS AND FLUID MACHINES	11	1	9%