



Bapatla Engineering College

(Autonomous)

Mahatmaji Puram, BAPATLA-522102, Guntur (Dt.), A.P., INDIA

Sponsored by the Bapatla Education Society

Approved by AICTE :: Affiliated to Acharya Nagarjuna University

Estd.1981

Minutes of the Online meeting of Board of Studies in Mathematics held on 28-07-2023(Friday) at 11:15AM from the Chamber of the Head, Department of Mathematics, Bapatla Engineering College, Bapatla.

Members present for the meeting through Online (Google Meet):

1. **Dr.P. VijayaSaradhi**
Professor, Department of Mathematics,
BEC, Bapatla. Chairman
2. **Dr.Y.N.Reddy**
Professor,
Department of Mathematics,
National Institute of Technology, Warangal, Member
3. **Dr. G. Sankara SekharRaju**
Professor & Principal
JNTU A College of Engineering,
Pulivendula. Member
4. **Dr. B. Satyanarayana**
Associate Professor, Department of Mathematics,
University College of Science,
AcharyaNagarjuna University, ANU. Member
5. **Dr. K. Siva Prasad**
Assistant Professor,
Department of Mathematics,
ANU, Guntur. Absent
Member
6. **Sri.M.Ravindra**
Senior Scientist ,
TRDDC , TCS
Pune. Member
7. **Dr. T. SrinivasaRao**
Associate Professor, Department of Mathematics,
BEC, Bapatla. Member
8. **Dr.K.V.L.N.Acharyulu**
Associate Professor, Department of Mathematics,
BEC, Bapatla. Member



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9. **Sri.N.Karunakar**
Assistant Professor, Department of Mathematics,
BEC, Bapatla. Member
10. **Dr.Noorbhasha Rafi**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. Member
11. **Dr. Mothukuri Balaiah**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. Member
12. **Sri I. Pothuraju**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. Member
13. **Miss.S.V.Vasavi**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. *Absent*
Member
14. **Smt.K.Nagamani**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. Member
15. **Miss I. Rajeswari**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. Member
16. **Mrs.T.Vimala**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. Member
17. **Sri Md.Abdul Khader**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. Member
18. **Mr.G.Sambasiva Rao**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. Member
19. **Ms. K.Suneetha**
Asst. Professor, Department of Mathematics,
BEC, Bapatla. Member



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The following item was on the agenda for discussion:

1. The new syllabus for the course, **Probability & Statistics** of the first Semester of second B.Tech (CSE-Artificial Intelligence & Machine learning).
Code: 22CM301/MA03.

Chairman, BOS, after welcoming the members for the meeting, presented the details of the agenda to the members.

The following resolutions were passed in the Board of Studies meeting:

1. The new syllabus for the course, **Probability & Statistics** of the first Semester of second B.Tech (CSE-Artificial Intelligence & Machine learning) mentioned in the item (1) of the agenda was thoroughly discussed and approved the new syllabus. The syllabus was designed by the experts based on the requirements of the said course.
Code: 22CM301/MA03.
Herewith a copy of it is enclosed.
2. The chairman is authorized to finalize the model papers, paper setters and examiners for all courses of B.Tech Examinations.

The Chairman, BOS, thanked the members before concluding the meeting.

P.V. Saradhi
Chairman, Board of Studies &
Head, Dept.of Mathematics, BEC

Copy to:
The Principal, Bapatla Engineering College,
Members, Board of Studies.

PROBABILITY AND STATISTICS

CSE (AIML)

22CM301 (3Th, 3 Credits)

II B. Tech, III Semester

Lectures	:	3 Hours/Week	Continuous Assessment	:	30
Final Exam	:	3 hours	Final Exam Marks	:	70

UNIT – I

Probability Densities: Continuous Random Variables, The Normal Distribution, The Normal Approximation to the Binomial Distribution, The Uniform Distribution, The Gamma Distribution, The Beta Distribution, The Weibull distribution, Joint Distributions - Discrete and Continuous.

(Sections 5.1, 5.2, 5.3, 5.5, 5.7, 5.8, 5.9, 5.10 of the Text Book)

[12 Hours]

UNIT – II

Sampling Distributions: Populations and Samples, The sampling distribution of the mean (σ known), The sampling distribution of the mean (σ unknown), The sampling distribution of the variance.

Inferences Concerning a Mean: Point estimation, Interval estimation, Tests of Hypotheses, Null Hypotheses and Tests of hypotheses, Hypothesis concerning one mean.

(Sections 6.1, 6.2, 6.3, 6.4, 7.1, 7.2, 7.4, 7.5, 7.6 of the Text Book)

[12 Hours]

UNIT-III

Comparing Two Treatments: Comparisons-Two independent Large samples, Comparisons-Two independent small samples, Matched pairs comparisons.

Inferences Concerning Variances: The estimation of variances, Hypotheses concerning one variance, Hypotheses concerning two variances.

(Sections 8.2, 8.3, 8.4, 9.1, 9.2, 9.3 of the Text Book)

[12 Hours]

UNIT –IV

Inferences Concerning Proportions: Estimation of proportions, Hypotheses concerning one proportion, Hypotheses concerning several proportions.

Regression Analysis: The method of least squares, Curvilinear regression, Multiple regression, Correlation.

Analysis of Variance: Some general principles, Completely Randomized Designs.

(10.1, 10.2, 10.3, 11.1, 11.3, 11.4, 11.6, 12.1, 12.2 of the Text Book)

[12 Hours]

Text Book:

Miller & Freund's "Probability and Statistics for Engineers", Richard A. Johnson, 8th Edition, PHI.

Reference Book:

Probability & Statistics for Engineers and Scientists', 6th Edition, PHI, R.E Walpole, R.H. Myers & S.L. Myers.