

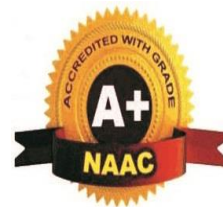


# VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

(An Autonomous Institution)

[Sponsored by Lavu Educational Society, Affiliated to JNTUH & Approved by AICTE, New Delhi]

Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301. Phone: 96529 10002/3



## Department of Computer Science and Engineering

### II B. Tech II Semester

#### SUBJECT: Computer Oriented Statistical Methods (25MA401BC)

At the end of the course, the student will be able to

| S.No. | COURSE OUTCOMES                                                                                                        | BT Level |
|-------|------------------------------------------------------------------------------------------------------------------------|----------|
| CO1   | Apply the concepts of Random variable and distributions to case studies.                                               | 3        |
| CO2   | Formulate and solve problems involving random variables and apply statistical methods for analyzing experimental data. | 5        |
| CO3   | Apply concept of estimation and testing of hypothesis to case studies.                                                 | 3        |
| CO4   | Correlate the concepts of one unit to the concepts in other units.                                                     | 4        |
| CO5   | Understand Stochastic process and Markov chains.                                                                       | 2        |

#### MAPPING

| CO      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| CO1     | 3   | 3   | 3   | 3   | 3   | -   | -   | -   | -   | -    | -    | 3    | 3    | 3    | -    |
| CO2     | 3   | 3   | 3   | 3   | 3   | -   | -   | -   | -   | -    | -    | 3    | 3    | 3    | -    |
| CO3     | 3   | 3   | -   | -   | -   | -   | -   | -   | -   | -    | -    | 2    | 3    | 2    | -    |
| CO4     | 3   | 3   | 2   | 2   | -   | -   | -   | -   | -   | -    | -    | 3    | 3    | 2    | -    |
| CO5     | 3   | 3   | 2   | 2   | -   | -   | -   | -   | -   | -    | -    | 3    | 3    | 3    | -    |
| Average | 3   | 3   | 2.5 | 2.5 | 3   | -   | -   | -   | -   | -    | -    | 2.8  | 3    | 2.6  | -    |

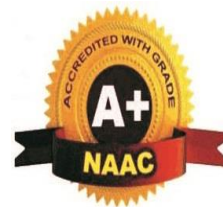


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## SUBJECT: Operating Systems(25CS402PC)

At the end of the course, the student will be able to

| S.No. | COURSE OUTCOMES                                                                                                                       | BT Level |
|-------|---------------------------------------------------------------------------------------------------------------------------------------|----------|
| CO1   | Understand the structure and functions of operating systems                                                                           | 2        |
| CO2   | Control access to a computer and the files that may be shared                                                                         | 5        |
| CO3   | Demonstrate the knowledge of the components of computers and their respective roles in computing.                                     | 2        |
| CO4   | Recognize and resolve user problems with standard operating environments.                                                             | 4        |
| CO5   | Gain practical knowledge of how programming languages, operating systems, and architectures interact and how to use each effectively. | 3        |

## MAPPING

| CO      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| CO1     | 2   | 2   | 2   | 1   | 1   | -   | -   | 3   | 2   | 3    | -    | 1    | 2    | 2    | 1    |
| CO2     | 3   | 3   | 3   | 2   | 2   | -   | -   | 2   | 3   | 2    | -    | 2    | 3    | 3    | 2    |
| CO3     | 3   | 3   | 3   | 3   | 2   | -   | -   | 1   | 2   | 2    | -    | 2    | 3    | 2    | 2    |
| CO4     | 2   | 3   | 3   | 2   | 2   | -   | -   | 2   | 2   | 1    | -    | 2    | 3    | 3    | 2    |
| CO5     | 3   | 3   | 3   | 3   | 3   | -   | -   | 2   | 2   | 2    | -    | 3    | 3    | 3    | 3    |
| Average | 2.6 | 2.8 | 2.8 | 2.2 | 2   | -   | -   | 2   | 2.2 | 2.0  | -    | 2    | 2.8  | 2.6  | 2    |



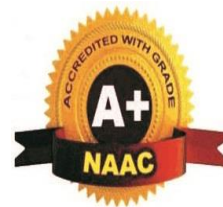


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**SUBJECT: Computer Networks(25CS404PC)**

**At the end of the course, the student will be able to**

| S.No. | COURSE OUTCOMES                                                                                                                  | BT Level |
|-------|----------------------------------------------------------------------------------------------------------------------------------|----------|
| CO1   | Gain the knowledge of the basic computer network technology.                                                                     | 1        |
| CO2   | Gain the knowledge of the functions of each layer in the ISO-OSI and TCP/IP reference model                                      | 2        |
| CO3   | Obtain the skills of subnetting and routing mechanisms.                                                                          | 1        |
| CO4   | Familiarity with the essential protocols of computer networks, and how they can be applied in network design and implementation. | 3        |
| CO5   | Understanding working of the protocols through traces captured by a packet sniffer                                               | 2        |

## MAPPING

| CO      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| CO1     | 3   | 3   | 2   | 2   | 2   | -   | -   | -   | 2   | -    | -    | 3    | 2    | 3    | -    |
| CO2     | 3   | 3   | 2   | 2   | 3   | -   | -   | -   | 2   | -    | -    | 2    | 1    | 3    | -    |
| CO3     | 2   | 2   | 3   | 3   | 3   | -   | -   | -   | 3   | -    | -    | 3    | 3    | 3    | -    |
| CO4     | 3   | 3   | 3   | 3   | 3   | -   | -   | -   | 3   | -    | -    | 3    | 3    | 3    | -    |
| CO5     | 3   | 2   | 3   | 2   | 3   | -   | -   | -   | 3   | -    | -    | 3    | 3    | 1    | -    |
| Average | 2.8 | 2.6 | 2.6 | 2.4 | 2.8 | -   | -   | -   | 2.6 | -    | -    | 2.8  | 2.4  | 2.6  | -    |



| CO      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| CO1     | 3   | 2   | -   | -   | 3   | -   | -   | -   | -   | -    | -    | -    | 2    | 3    | -    |
| CO2     | 3   | 2   | -   | -   | 3   | -   | -   | -   | -   | -    | -    | -    | 2    | 3    | -    |
| CO3     | 3   | 2   | -   | -   | 3   | -   | -   | -   | -   | -    | -    | -    | 2    | 3    | -    |
| CO4     | 3   | 2   | -   | -   | 3   | -   | -   | -   | -   | -    | -    | -    | 2    | 3    | -    |
| CO5     | 3   | 2   | -   | -   | 3   | -   | -   | -   | -   | -    | -    | -    | 2    | 3    | -    |
| Average | 3   | 2   | -   | -   | 3   | -   | -   | -   | -   | -    | -    | -    | 2    | 3    | -    |

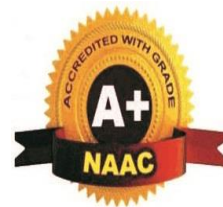


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## SUBJECT: Operating Systems Lab(25CS407PC)

At the end of the course, the student will be able to

| S.No. | COURSE OUTCOMES                                                                                                                  | BT Level |
|-------|----------------------------------------------------------------------------------------------------------------------------------|----------|
| CO1   | Simulate and implement operating system concepts such as scheduling, deadlock management, file management and memory management. | 1        |
| CO2   | Implement C programs using Unix system calls                                                                                     | 2        |
| CO3   | Apply memory management and file system operations using system calls                                                            | 3        |
| CO4   | Develop shell scripts for automation and system administration tasks                                                             | 4        |
| CO5   | Demonstrate teamwork, debugging, and documentation skills in lab assignments                                                     | 2        |

## MAPPING

| CO      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| CO1     | 3   | 2   | 2   | -   | -   | -   | -   | -   | 2   | -    | -    | -    | 2    | 2    | 2    |
| CO2     | 3   | 3   | 3   | -   | -   | -   | -   | -   | 2   | -    | -    | -    | 3    | 3    | 2    |
| CO3     | 3   | 3   | 3   | -   | -   | -   | -   | -   | 2   | -    | -    | -    | 3    | 3    | 3    |
| CO4     | 3   | 3   | 3   | -   | -   | -   | -   | -   | 2   | -    | -    | -    | 3    | 3    | 2    |
| CO5     | 3   | 3   | 3   | -   | -   | -   | -   | -   | 2   | -    | -    | -    | 3    | 3    | 3    |
| Average | 3   | 2.8 | 2.8 | -   | -   | -   | -   | -   | 2   | -    | -    | -    | 2.8  | 2.8  | 2.4  |

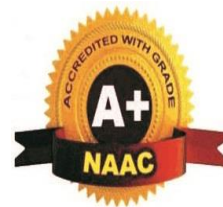


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## SUBJECT: Computer Networks Lab (25CS408PC)

At the end of the course, the student will be able to

| S.No. | COURSE OUTCOMES                                                        | BT Level |
|-------|------------------------------------------------------------------------|----------|
| CO1   | Implement data link layer framing methods                              | 3        |
| CO2   | Analyze error detection and error correction codes.                    | 4        |
| CO3   | Implement and analyze routing and congestion issues in network design. | 2        |
| CO4   | Implement Encoding and Decoding techniques used in presentation layer  | 3        |
| CO5   | Work with different network tools                                      | 5        |

## MAPPING

| CO      | PO1 | PO2 | PO3  | PO4 | PO5 | PO6 | PO7 | PO8 | PO9  | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------|-----|-----|------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| CO1     | 3   | -   | -    | 3   | -   | -   | -   | -   | 2    | -    | -    | -    | 2    | 3    | 2    |
| CO2     | 2   | 2   | -    | 3   | 2   | -   | -   | -   | 3    | -    | -    | -    | 3    | 3    | 2    |
| CO3     | 3   | 2   | 2    | 2   | 2   | -   | -   | -   | -    | -    | -    | -    | 2    | 2    | 2    |
| CO4     | 3   | 3   | 3    | 2   | 3   | -   | -   | -   | 3    | -    | -    | -    | 2    | 2    | 2    |
| CO5     | 2   | 3   | 2    | 3   | 3   | -   | -   | -   | 3    | -    | -    | -    | -    | 2    | 3    |
| Average | 2.6 | 2.5 | 2.33 | 2.6 | 2.5 | -   | -   | -   | 2.75 | -    | -    | -    | 2.25 | 2.4  | 2.2  |

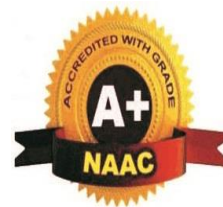


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**SUBJECT: Machine Learning Lab(25ML409PC)**

**At the end of the course, the student will be able to**

| S.No. | COURSE OUTCOMES                                                                              | BT Level |
|-------|----------------------------------------------------------------------------------------------|----------|
| CO1   | Understand modern notions in predictive data analysis.                                       | 2        |
| CO2   | Select data, model selection, model complexity and identify the trends.                      | 3        |
| CO3   | Understand a range of machine learning algorithms along with their strengths and weaknesses. | 2        |
| CO4   | Build predictive models from data and analyze their performance.                             | 6        |
| CO5   | Performance analysis of Classification Algorithms on a specific dataset.                     | 4        |

## MAPPING

| CO      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| CO1     | 3   | 3   | 3   | -   | 2   | -   | -   | -   | 2   | 2    | 2    | 2    | -    | 2    | 2    |
| CO2     | 3   | 3   | 3   | -   | 2   | -   | -   | -   | 2   | 2    | 2    | 2    | -    | 3    | 2    |
| CO3     | 3   | 3   | 3   | -   | 3   | -   | -   | -   | 3   | 3    | 2    | 3    | -    | 3    | 2    |
| CO4     | 3   | 3   | 3   | -   | 3   | -   | -   | -   | 3   | 3    | 3    | 3    | -    | 3    | 2    |
| CO5     | 2   | 2   | 2   | -   | 2   | -   | -   | -   | 3   | 3    | 3    | 2    | -    | 2    | 3    |
| Average | 2.8 | 2.8 | 2.8 | -   | 2.4 | -   | -   | -   | 2.6 | 2.6  | 2.4  | 2.4  | -    | 2.6  | 2.2  |

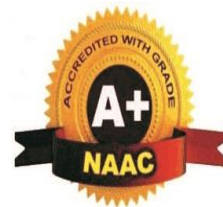


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## SUBJECT: Data Visualization - R Programming/ Power Bi(25DS410SD)

At the end of the course, the student will be able to

| S.No. | COURSE OUTCOMES                                                                                | BT Level |
|-------|------------------------------------------------------------------------------------------------|----------|
| CO1   | Understand How to import data into Tableau.                                                    | 1        |
| CO2   | Understand Tableau concepts of Dimensions and Measures.                                        | 2        |
| CO3   | Develop Programs and understand how to map Visual Layouts and Graphical Properties.            | 3        |
| CO4   | Create a Dashboard that links multiple visualizations.                                         | 5        |
| CO5   | Use graphical user interfaces to create Frames for providing solutions to real world problems. | 4        |

## MAPPING

| CO      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| CO1     | 3   | 3   | 2   | 2   | 2   | 2   | -   | -   | 3   | -    | 2    | 2    | 3    | 3    | 2    |
| CO2     | 3   | 3   | 3   | 3   | 2   | 2   | -   | -   | 2   | -    | 3    | 2    | 3    | 3    | 2    |
| CO3     | 3   | 3   | 3   | 3   | 2   | 2   | -   | -   | 2   | -    | 3    | 3    | 3    | 3    | 2    |
| CO4     | 3   | 3   | 3   | 3   | 3   | 2   | -   | -   | 2   | -    | 2    | 3    | 3    | 3    | 2    |
| CO5     | 3   | 3   | 3   | 3   | 3   | 3   | -   | -   | 3   | -    | 2    | 3    | 3    | 3    | 3    |
| Average | 3   | 3   | 2.8 | 2.8 | 2.4 | 2.2 | -   | -   | 2.4 | -    | 2.4  | 2.6  | 3    | 3    | 2.2  |