



**DNR COLLEGE OF ENGINEERING & TECHNOLOGY, Bhimavaram**  
**BALUSUMUDI, BHIMAVARAM, W.G. Dist., A.P., PIN-534 202**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**Course Outcomes (COs)**

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	ADVANCED DATA STRUCTURES AND ALGORITHM ANALYSIS	<b>Class / Sem</b>	I/I
<b>Faculty Name:</b>	Dr. B V S VARMA	<b>Regulation</b>	R19

**Course Outcomes**

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5211.1	Apply Algorithm for solving problems like sorting, searching, insertion and deletion of data	Apply
C5211.2	Ability to apply and implement learned algorithm design techniques and data structures to solve problems.	Apply
C5211.3	Ability to create different algorithm design techniques (brute-force, divide and conquer, greedy, etc	Create
C5211.4	Basic ability to analyze algorithms and to determine algorithm correctness and time efficiency class.	Analyze
C5211.5	Understand the concept of Dynamic memory management, data types, algorithms, Big O notation.	Understand
C5211.6	Describe the hash function and concepts of collision and its resolution methods	Evaluate

<sup>#</sup> Remember; Understand; Apply; Analyze; Evaluate; Create

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	Advanced Operating Systems	<b>Class / Sem</b>	I/I
<b>Faculty Name:</b>	K S R PRASAD	<b>Regulation</b>	R19

**Course Outcomes**

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5312.1	Understands the different services provided by Operating System at different level.	Understand
C5312.2	Understands the use of different process scheduling algorithm and synchronization techniques to avoid deadlock.	Apply
C5332.3	Able to learn different memory management techniques like paging, segmentation and demand paging etc.	Analyse
C5312.4	Analyze various scheduling algorithms.	Analyse
C5312.5	Apply protection and security in distributed operating systems.	Apply
C5312.6	Elaborate on concurrency control mechanisms in distributed database systems.	Analyse

<sup>#</sup> Remember; Understand; Apply; Analyze; Evaluate; Create

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	MATHEMATICAL FOUNDATIONS OF COMPUTER SCIENCE	<b>Class / Sem</b>	I/I
<b>Faculty Name:</b>	N U B VARMA	<b>Regulation</b>	R19

### Course Outcomes

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5111.1	Apply organization of basic computer, its design and the design of control unit	Apply
C5111.2	Demonstrate the working of central processing unit and RISC and CISC Architecture	Demonstrate
C5111.3	Describe the operations and language of the register transfer, micro operations and input-output organization	Apply
C5111.4	Understand the organization of memory and memory management hardware	Understand
C5111.5	Elaborate advanced concepts of computer Architecture, parallel processing, inter processor communication and synchronization	Analyse
C5111.6	Summarize the memory organization and pipelining concepts	Summarize

<sup>#</sup> Remember; Understand; Apply; Analyse; Evaluate; Create

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	RESEARCH METHODOLOGY and IPR	<b>Class / Sem</b>	I/I
<b>Faculty Name:</b>		<b>Regulation</b>	R19

### Course Outcomes

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5511.1	Understand the research problem and research process.	Understand
C5511.2	Understand research ethics.	Understand
C5511.3	Prepare a well-structured research paper and scientific presentations	Analyse
C5511.4	Explore on various IPR components and process of filing.	Apply
C5511.5	Understand Scope of Patent Rights	Understand
C5511.6	Understand the adequate knowledge on patent and rights	Understand

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**Course Outcomes (COs)**

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	Machine Learning	<b>Class / Sem</b>	I/II
<b>Faculty Name:</b>	B V S VARMA	<b>Regulation</b>	R19

**Course Outcomes**

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C51121.1	Domain Knowledge for Productive use of Machine Learning and Diversity of Data.	Understand
C51121.2	Demonstrate on Supervised and Computational Learning	Apply
C51121.3	Analyze on Statistics in learning techniques and Logistic Regression	Analyze
C51121.4	Illustrate on Support Vector Machines and Perceptron Algorithm	Design
C51121.5	Design a Multilayer Perception Networks and classification of decision tree	Analyse
C51121.6	Estimate the cost of constructing object oriented software.	Apply

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<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	MEAN Stack Technologies	<b>Class / Sem</b>	I/II
<b>Faculty Name:</b>	K VENKATA CHANDRAN	<b>Regulation</b>	R19

**Course Outcomes**

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5212.1	After the completion of the course, student will be able to	Understand
C5212.2	Identify the Basic Concepts of Web & Mark up Languages	Understand
C5212.3	Develop web Applications using Scripting Languages & Frameworks.	Analyze
C5212.4	Make use of Express JS and Node JS frameworks	Design
C5212.5	Illustrate the uses of web services concepts like restful, react js	Illustrate
C5212.6	Adapt to Deployment Techniques & Working with cloud platform.	Apply

<sup>#</sup> Remember; Understand; Apply; Analyze; Evaluate; Create

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	ADVANCED DATABASE AND MINING	<b>Class / Sem</b>	I/II
<b>Faculty Name:</b>	K S R PRASAD	<b>Regulation</b>	R19

### Course Outcomes

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5312.1	Understand fundamental concepts of data warehousing and OLAP techniques	Understand
C5312.2	Apply data-cubing techniques and conduct multi-dimensional data analysis	Apply
C5312.3	Demonstrate advanced knowledge on the design and implementation of data warehouses	Apply
C5312.4	Develop in-depth understanding of fundamental data mining algorithms	Create
C5312.5	Apply data mining techniques for knowledge discovery	Apply
C5312.6	Perform practical data mining using open source tools	Analyze

<sup>#</sup> Remember; Understand; Apply; Analyze; Evaluate; Create

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	PINCIPLES OF COMPUTER SECURITY	<b>Class / Sem</b>	I/II
<b>Faculty Name:</b>	L BUJJI BABU	<b>Regulation</b>	R19

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5312.1	Analyze and evaluate the cyber security needs of an organization.	Analyze
C5312.2	Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.	Apply
C5312.3	Implement cyber security solutions and use of cyber security, information assurance, and cyber/computer forensics software/tools	Apply
C5312.4	Comprehend and execute risk management processes, risk treatment methods, and key risk and performance indicators	Evaluate
C5312.5	Design and develop a security architecture for an organization	Create
C5312.6	Design operational and strategic cyber security strategies and policies.	Create

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**Course Outcomes (COs)**

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	DEEP LEARNING	<b>Class / Sem</b>	II/I
<b>Faculty Name:</b>	K VENKATA CHANDRAN	<b>Regulation</b>	R19

**Course Outcomes**

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5121.1	Demonstrate the basic concepts fundamental learning techniques and layers	Understand
C5121.2	Discuss the Neural Network training, various random models.	Understand
C5121.3	Classify the Probabilistic Neural Networks.	Analyze
C5121.4	Implement tools on Deep Learning techniques.	Design
C5121.5	Learn deep learning methods for working with sequential data	Understand
C5121.6	Apply such deep learning mechanisms to various learning problems.	Apply

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<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2021-2022
<b>Course Name:</b>	OPERATIONAL RESEARCH	<b>Class / Sem</b>	II/I
<b>Faculty Name:</b>	N U B VARMA	<b>Regulation</b>	R19

**Course Outcomes**

After completing this course, the student will be able to:

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5221.1	Recognize the importance and value of Operations Research and linear programming in solving practical problems in industry	Understand
C5221.2	Interpret the transportation models' solutions and infer solutions to the real-world problems.	Understand
C5221.3	Recognize and solve game theory and assignment problems.	Analyze
C5221.4	Gain knowledge of drawing project networks for quantitative analysis of projects	Design
C5221.5	know when simulation and dynamic programming can be applied in real world problems	Understand
C5221.6	Recognize and solve game theory and assignment problems.	Apply

<sup>#</sup> Remember; Understand; Apply; Analyze; Evaluate; Create