



**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>	2018-2019
<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>	R16

**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 Algorithm for solving problems like sorting, searching, insertion and deletion of data	Apply
C5111.2	Ability to apply and implement learned algorithm design techniques and data structures to solve problems.	Apply
C5111.3	Ability to create different algorithm design techniques (brute-force, divide and conquer, greedy, etc	Create
C5111.4	Basic ability to analyze algorithms and to determine algorithm correctness and time efficiency class.	Analyze
C5111.5	Understand the concept of Dynamic memory management, data types, algorithms, Big O notation.	Understand
C5111.6	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>	2018-2019
<b>Course Name:</b>	Advanced Operating Systems	<b>Class / Sem</b>	I/I
<b>Faculty Name:</b>	K S R PRASAD	<b>Regulation</b>	R16

**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>
C5512.1	Understands the different services provided by Operating System at different level.	Understand
C5512.2	Understands the use of different process scheduling algorithm and synchronization techniques to avoid deadlock.	Apply
C5512.3	Able to learn different memory management techniques like paging, segmentation and demand paging etc.	Analyse
C5512.4	Analyze various scheduling algorithms.	Analyse
C5512.5	Apply protection and security in distributed operating systems.	Apply
C5512.6	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>	2018-2019
<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>	R16

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 organization of basic computer, its design and the design of control unit	Apply
C5211.2	Demonstrate the working of central processing unit and RISC and CISC Architecture	Demonstrate
C5211.3	Describe the operations and language of the register transfer, micro operations and input-output organization	Apply
C5211.4	Understand the organization of memory and memory management hardware	Understand
C5211.5	Elaborate advanced concepts of computer Architecture, parallel processing, inter processor communication and synchronization	Analyse
C5211.6	Summarize the memory organization and pipelining concepts	Summarize

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

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2018-2019
<b>Course Name:</b>	Computer Organization and Architecture	<b>Class / Sem</b>	I/I
<b>Faculty Name:</b>	B NANDHAN KUMAR	<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>
C5311.1	Recall and Summarize the basic concept of computer fundamentals, Number system, Boolean algebra Perform problems on IEEE 754 standard number system	Apply
C5311.2	Explain the concept of stored program, role of operating system, Instruction sets and Addressing modes and Demonstrate problems on Addressing modes	Apply
C5311.3	Design of adders, ALU and Memory management unit and Illustrate problems related to cache memory	Create
C5311.4	Explain and Use fixed point multiplication (Booth's) and division (Restoring and non-restoring) algorithms	Apply
C5311.5	Explain the concept of Instruction pipeline, RISC, CISC	Understand
C5311.6	Develop control unit and Explain the concept of various I/O operations	Create

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

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2018-2019
<b>Course Name:</b>	DATABASE MANAGEMENT SYSTEM	<b>Class / Sem</b>	I/I
<b>Faculty Name:</b>	L BUJJI BABU	<b>Regulation</b>	R16

### 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>
C5411.1	Define a problem at the view level & ability to understand the physical structure of the database to handle data	Remember
C5411.2	Demonstrate the basic elements of a relational database management system.	Apply
C5411.3	Identify the data models for relevant problems.	Analyze
C5411.4	Design entity relationship and convert entity relationship diagrams into RDBMS and formulate SQL queries on the respect data into RDBMS and formulate SQL queries on the data.	Analyze
C5411.5	Demonstrate their understanding of key notions of query evaluation and optimization techniques.	Apply
C5411.6	Explain normalization for the development of application software's.	Understand

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

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2018-2019
<b>Course Name:</b>	DATA WAREHOUSING AND DATA MINING	<b>Class / Sem</b>	I/I
<b>Faculty Name:</b>	K.V CHANDRAN	<b>Regulation</b>	R16

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

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5611.1	Understand the functionality of the various data mining and data warehousing component	Understand
C5611.2	Appreciate the strengths and limitations of various data mining and data warehousing models	Apply, Create
C5611.3	Explain the analyzing techniques of various data	Analyze
C5611.4	Describing and demonstrating basic data mining algorithms, methods, and tools	Remember
C5611.5	Describe different methodologies used in data mining and data warehousing.	Analyze
C5611.6	Compare different approaches of data warehousing and data mining with various technologies.	Evaluate

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



**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>	2018-2019
<b>Course Name:</b>	CYBER SECURITY	<b>Class / Sem</b>	I/II
<b>Faculty Name:</b>	L BUJJI BABU	<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	Understand the various tools and methods used in cybercrime.	Understand
C51121.2	Identify risk management processes, risk treatment methods, organization of information security.	Analyze
C51121.3	Classify cyber security solutions and information assurance.	Analyze
C51121.4	Examine software vulnerabilities and security solutions to reduce the risk of exploitation.	Apply
C51121.5	Analyze the cyber security needs of an organization.	Analyze
C51121.6	Demonstrate comprehension of the tradeoffs involved in the application of security.	Apply

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

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2018-2019
<b>Course Name:</b>	COMPUTER NETWORKS	<b>Class / Sem</b>	I/II
<b>Faculty Name:</b>	K VENKATA CHANDRAN	<b>Regulation</b>	R16

**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	Explain basic concepts, OSI reference model, services and role of each layer of OSI model and TCP/IP, networks devices and transmission media, Analog and digital data transmission	Understand
C5212.2	Apply channel allocation, framing, error and flow control techniques.	Apply
C5212.3	Describe the functions of Network Layer i.e. Logical addressing, subnetting & Routing Mechanism.	Understand
C5212.4	Explain the different Transport Layer function i.e. Port addressing, Connection Management, Error control and Flow control mechanism.	Understand
C5212.5	Explain the functions offered by session and presentation layer and their Implementation	Understand
C5212.6	Explain the different protocols used at application layer i.e. HTTP, SNMP, SMTP, FTP, TELNET and VPN	Understand

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

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2018-2019
<b>Course Name:</b>	BIG DATA ANALYTICS	<b>Class / Sem</b>	I/II
<b>Faculty Name:</b>	B NANDHAN KUMAR	<b>Regulation</b>	R16

#### 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	Identify Big Data and its Business Implications.	Analyze
C5312.2	List the components of Hadoop and Hadoop Eco-System	Remember
C5312.3	Explain Process Data on Distributed File System	Understand
C5312.4	Develop Big Data Solutions using Hadoop Eco System	Create
C5312.5	Analyze Infosphere BigInsights Big Data Recommendations.	Analyze
C5312.6	Apply Machine Learning Techniques using R.	Apply

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

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2018-2019
<b>Course Name:</b>	ADVANCED UNIX PROGRAMMING	<b>Class / Sem</b>	I/II
<b>Faculty Name:</b>	K S R PRASAD	<b>Regulation</b>	R16

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

<b>CO Number</b>	<b>CO Statement</b>	<b>Taxonomy<sup>#</sup></b>
C5412.1	Understand the basic commands of Linux operating system and can write shell scripts.	Understand
C5412.2	Create file systems and directories and operate those using programs.	Create
C5412.3	Understand the processes background and fore ground by process and signals system calls	Understand
C5412.4	Create shared memory segments, pipes, message queues and can exercise inter process communication	Create
C5412.5	Create sockets and semaphores to interact between process of different system.	Create
C5412.6	Create shared memory segments, pipes, message queues	Create

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

<b>Program Name:</b>	M. Tech in Computer Science & Engineering	<b>AY</b>	2018-2019
<b>Course Name:</b>	CLOUD COMPUTING	<b>Class / Sem</b>	I/II
<b>Faculty Name:</b>	BVS VARMA	<b>Regulation</b>	R16

### 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>
C5611.1	Interpret the key dimensions of the challenge of Cloud Computing.	Understand
C5611.2	Examine the economics, financial, and technological implications for selecting cloud computing for own organization.	Understand
C5611.3	Assessing the financial, technological, and organizational capacity of employer's for actively initiating and installing cloud-based applications.	Analyze
C5611.4	Evaluate own organizations' needs for capacity building and training in cloud computing-related IT areas.	Design
C5611.5	To Illustrate Virtualization for Data-Centre Automation.	Illustrate
C5611.6	Apply Map-Reduce concept to applications.	Apply

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