

SRIVASAVIENGINEERING COLLEGE (Autonomous)



(Permanent Affiliation to JNTUK, Kakinada), PEDATADEPALLI, TADEPALLI GUDEM-534101

Department of Computer Science and Engineering

PROGRAMME NAME: M.TECH (COMPUTER SCIENCE)

Course Outcomes (V18 Regulation)

Semester	Course Code & Name	Course Outcomes
I Semester	V18CTT01 Object Oriented Software Engineering	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none">1. Describe Software development life cycle for Object-Oriented solutions of Real-world problems.2. Discuss Planning, Estimation and CASE tools.3. Apply OO concepts along with their applicability contexts.4. Demonstrate object oriented analysis and design.5. Describe Implementation, Integration and Maintenance phases.
I Semester	V18CTT02 NOSQL Database	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none">1. Define, compare and use the four types of NoSQL Databases (Document-oriented, Key Value Pairs, Column oriented and Graph).2. Demonstrate an understanding of the detailed architecture, define objects, load data, query data3. Performance tune Column-oriented NoSQL databases.4. Explain the detailed architecture, define objects load data, query data and performance tune Document oriented NoSQL databases.
I Semester	V18CTT03 Advanced Computer Architecture	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none">1. Identify different types of parallel computer models.2. Describe various processor and memory organizations.3. Explain Pipelining, Multiprocessors and Multicomputer concepts..4. Explain Multivector, SIMD Computers and Multithreaded, Dataflow Architectures.5. Illustrate the parallel programming models and instruction level parallelism.
I Semester	V18CTT04 Advanced Operating Systems	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none">1. Define, Explain, and Apply Distributed Operating System Concepts: Architectures of Distributed Systems, Distributed Mutual Exclusion, Issues and its Inherent Limitations.2. Describe the concepts of Distributed Resource Management, Dead lock Detection and Resolution3. Explain the concepts of Distributed Shared Memory, Distributed Scheduling, Failure Recovery and Fault tolerance.4. Describe the concepts of Cryptography and Data Security in Distributed System.5. Describe Multiprocessor Operating System and Database Operating System: Concepts, Architecture and Design issues.

I Semester	V18CTT05 Advanced Data Structures and Algorithm Analysis	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Build Linear data structures using static and dynamic memory allocation. 2. Construct different types of trees. 3. Implement different types of graph algorithms. Illustrate Matrix Multiplication and Sorting Techniques. 4. Analyze algorithms and to determine correctness and time efficiency of algorithm.. 5. Implement dynamic programming for different types of problems.
I Semester	V18CTT06 Machine Learning	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Recognize the characteristics of machine learning that make it useful to real-world Problems. 2. Characterize machine learning algorithms as supervised, semi-supervised, and unsupervised. 3. Have heard of a few machine learning toolboxes. 4. Be able to use support vector machines. 5. Be able to use regularized regression algorithms.
I Semester	V18CTL01 NOSQL Database Lab	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Install and run Mongo DB 2. Identify differences between relational and NoSQL database systems 3. Execute various operations in Mongo DB 4. Apply Map reduce for problem solving. 5. Know Column oriented databases.
I Semester	V18CTL02 Advanced Data Structures and Algorithm Analysis Lab	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Design and analyze simple linear and non linear data structures. 2. Implement ADT for Data Structures. 3. Implement algorithms using different types of technique. 4. Strengthen the ability to identify and apply the suitable data structure for the given real world problem
II Semester	V18CTT07 Data Science	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Understand the process of data validation and its role in decision making 2. Understand, create, and modify analytic and exploratory algorithms operating over data. Verify and quantify the validity of hypothesis using data analytics. 3. Know the privacy and data protection legislation and the data scientist professional code and ethics.
II Semester	V18CTT08 Advanced Web Technologies	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Understand the current technologies in Internet world. 2. Design interactive web pages using HTML & Style Sheets and design Individual Graphical User Interfaces. 3. Acquire knowledge of XML fundamentals and usage of XML technology in electronic data Interchange and creation of desktop applications using swings and beans. 4. Know the fundamentals of client side scripting such as JavaScript and apply it for data validation. 5. Design and develop web based enterprise systems for the enterprises using technologies like JSP with database.
II Semester	V18CTT09 Cloud Computing	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Able to understand about Cloud Computing Platforms and Technologies. 2. Students will be aware about Architecture and Open Challenges in Cloud Computing. 3. Students will be able to monitor and manage cloud computing applications. 4. Students will be able to describe the mechanisms needed to harness Cloud Computing in their own respective endeavors. 5. Students will be able to solve case studies related to Cloud Computing.

II Semester	V18CTT10 Internet of Things	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Demonstrate knowledge and understanding of the security and ethical issues of the Internet of Things 2. Conceptually identify vulnerabilities, including recent attacks, involving the Internet of Things 3. Develop critical thinking skills. 4. Compare and contrast the threat environment based on industry and/or device type.
II Semester	V18CTT11 Cyber Security (Elective-I)	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Understand the broad set of technical, social & political aspects of Cyber Security. 2. Appreciate the vulnerabilities and threats posed by criminals, terrorist and nation states to national infrastructure. 3. Understand the nature of secure software development, operating systems and database design. 4. Recognized the role security management plays in cyber security defense. 5. Understand the security management methods to maintain security protection.
II Semester	V18CTT12 Artificial Intelligence (Elective-I)	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Describe Artificial Intelligence Techniques. 2. Illustrate Knowledge Representation in AI 3. Explain the concepts of planning and learning in AI
II Semester	V18CTT13 Bioinformatics (Elective-I)	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Broad Understanding of Biology: Students will interpret relationships among living things and analyze and solve biological problems, from the molecular to ecosystem level using basic biological concepts, grounded in foundational theories." 2. Computer Programming: Students will create computer programs that facilitate bioinformatics. 3. The students will be able to describe the contents and properties of the most important bioinformatics databases, perform text- and sequence-based searches, and analyze and discuss the results in light of molecular biological knowledge 4. The students will be able to explain the major steps in pairwise and multiple sequence alignment, explain the principle for, and execute Pairwise sequence alignment by dynamic programming
II Semester	V18CTT14 Wireless Sensor Networks	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Identify the applications and challenges of MANETs. 2. Explain Ad-hoc network routing protocols. 3. Describe Broadcasting, Multicasting and Geocasting Routing Protocols. 4. Describe and Discriminate Wireless LANs, Wireless PANs & Wireless Mesh Networks.
II Semester	V18CTT15 Image Processing (Elective –II)	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Understand the basics of image processing. 2. Understand 2 D Transformations. 3. Learn the Digital image properties. 4. Acquire the knowledge of mathematical concepts for application on image morphing. 5. Be able to conduct independent study and analysis of image processing problems and techniques.
II Semester	V18CTT16 Parallel Algorithms (Elective –II)	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Understand the various application areas. 2. Understand the Efficiency of parallel algorithms. 3. Understand parallel sorting network. 4. Understand parallel searching algorithm.

II Semester	V18CTT17 Mobile Computing (Elective-II)	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Describe the basic concepts and principles in mobile computing. 2. Understand the concept of Wireless LANs, PAN, Mobile Networks, and Sensor Networks. 3. Understand positioning techniques and location based services and applications. 4. Describe the important issues and concerns on security and privacy.
II Semester	V18CTT18 GRID Computing (Elective –II)	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Understand the need for and evolution of Grids in the context of processor- and data-intensive applications. 2. Be familiar with the fundamental components of Grid environments, such as authentication, authorization, resource access, and resource discovery. 3. Be able to design and implement Grid computing. 4. Be able to justify the applicability, or non-applicability, of Grid technologies for a specific application.
II Semester	V18CTL03 Data Science Lab (Elective –II)	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Understand the Concepts of R and Programming. 2. Understand the mathematics from a numerical point of view, including the application of these concepts root-finding, numerical integration and optimization. 3. Understand the purpose for random variable and expectations required to understand simulations. 4. Implement the Monte carlo and Stochastic Modeling. 5. Work effectively in teams on data science projects using R.
II Semester	V18CTL04 Advanced Web Technologies Lab	After Successful completion of the Course, the student will be able to: <ol style="list-style-type: none"> 1. Develop static web pages using HTML, CSS. 2. Demonstrate the concepts of JavaScript and DHTML. 3. Demonstrate the basic concepts of PHP and JSP. 4. Demonstrate the concepts of Extensible markup language & AJAX. 5. Develop dynamic Web Applications using PHP & MySQL.