



Sree Chitra Thirunal College of Engineering

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Consolidated Course Outcomes Report

| Batch | Sno | Subject | CO | Topic | Bloom's taxonomy level |
|------------|-----------------------|---|---|--|------------------------|
| AM 2K20 | 1 | MATHEMATICAL FOUNDATIONS FOR MACHINE LEARNING | CO1 | Make use of the concepts , rules and results about linear equations,matrix algebra, vector spaces to solve computational problems | Applying(P) |
| | | | CO2 | Make use of the concepts, eigen values and eigen vectors and orthogonality and diagonalization to solve computational problems | Applying(P) |
| | | | CO3 | Perform calculus operations on functions of several variables and matrices, including partial derivatives and gradients | Applying(P) |
| | | | CO4 | Utilize the concepts, rules and results about probability ,rv, additive and multiplicative rules ,conditional probability distributions and Bayes theorem to find solutions of computational problems. | Applying(P) |
| | | | CO5 | Train Machine learning models using unconstrained and constrained optimization methods. | Applying(P) |
| | 2 | COMPUTER ORGANISATION AND ARCHITECTURE | CO1 | Recognize and express the relevance of basic components, I/O organization and pipelining schemes in a digital computer | Understanding(U) |
| | | | CO2 | Explain the types of memory systems and mapping functions used in memory systems | Understanding(U) |
| | | | CO3 | Demonstrate the control signals required for the execution of a given instruction | Applying(P) |
| | | | CO4 | Illustrate the design of the Processor Unit | Applying(P) |
| | | | CO5 | Explain the implementation aspects of arithmetic algorithms in a digital computer | Applying(P) |
| | | | CO6 | Develop the control logic for a given arithmetic problem | Applying(P) |
| | 3 | DATABASE MANAGEMENT SYSTEM | CO1 | Summarize fundamental nature and characteristics of database systems | Understanding(U) |
| | | | CO2 | Model real word scenarios given as informal descriptions, using Entity Relationship diagrams. | Applying(P) |
| | | | CO3 | Model solutions for efficiently representing and querying data using relational model | Applying(P) |
| | | | CO4 | Demonstrate the features of indexing and hashing in database applications | Understanding(U) |
| | | | CO5 | Discuss the aspects of Concurrency Control and Recovery in Database systems and NoSQL databases | Understanding(U) |
| | 4 | OPERATING SYSTEM | CO1 | Explain the relevance, structure, and functions of Operating Systems in computing devices. (Cognitive knowledge: Understand) | Understanding(U) |
| | | | CO2 | Compare the concepts of process management and process scheduling mechanisms employed in Operating Systems. (Cognitive knowledge: Understand) | Analyzing(A) |
| | | | CO3 | Analyse process synchronization in Operating Systems and illustrate process synchronization mechanisms using Mutex Locks, Semaphores, and Monitors (Cognitive knowledge: Understand) | Analyzing(A) |
| | | | CO4 | Explain any one method for detection, prevention, avoidance and recovery formanaging deadlocks in Operating Systems. | Understanding(U) |
| | | | CO5 | Explain the memory management algorithms in Operating Systems. | Understanding(U) |
| | | | CO6 | Explain the security aspects and algorithms for file and storage management in Operating Systems | Understanding(U) |
| | 5 | DESIGN AND ENGINEERING | CO1 | Explain the different concepts and principles involved in design engineering. | Understanding(U) |
| | | | CO2 | Apply design thinking while learning and practicing engineering. | Applying(P) |
| CO3 | | | Develop innovative, reliable, sustainable and economically viable designs incorporating knowledge in engineering. | Applying(P) | |
| 6 | CONSTITUTION OF INDIA | CO1 | Explain the background of the present constitution of India and features. | | |
| | | CO2 | Utilize the fundamental rights and duties | | |
| | | CO3 | Understand the working of the union executive, parliament and judiciary. | | |

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| | | CO4 | Understand the working of the state executive, legislature and judiciary. | |
| | | CO5 | Utilize the special provisions and statutory institutions. | |
| | | CO6 | Show national and patriotic spirit as responsible citizens of the country | |
| 7 | DATABASE MANAGEMENT SYSTEMS LAB | CO1 | Design Database Scheme for a real world problem domain using standard design and modelling approach | Applying(P) |
| | | CO2 | Construct queries using SQL for database creation, interaction, modification and updation | Applying(P) |
| | | CO3 | Design and Implement Triggers | Applying(P) |
| | | CO4 | Implement Procedures, Functions and Control Structures using PL/SQL | Applying(P) |
| | | CO5 | Perform CRUD operations in NO SQL databases | Applying(P) |
| | | CO6 | Develop Database Application using Front End Tool and Backend DBMS | Create(C) |
| 8 | OPERATING SYSTEM LAB | CO1 | Illustrate the use of systems calls in Operating Systems. (Cognitive knowledge: Understand) | Understanding(U) |
| | | CO2 | CO2 Implement Process Creation and Inter Process Communication in Operating Systems. (Cognitive knowledge: Apply) | Applying(P) |
| | | CO3 | CO3 Implement First Come First Served, Shortest Job First, Round Robin and Priority- based CPU Scheduling Algorithms. (Cognitive knowledge: Apply) | Applying(P) |
| | | CO4 | CO4 Illustrate the performance of First In First Out, Least Recently Used and Least Frequently Used Page Replacement Algorithms. (Cognitive knowledge: Apply) | Applying(P) |
| | | CO5 | CO5 Implement modules for Deadlock Detection and Deadlock Avoidance in Operating Systems. (Cognitive knowledge: Apply) | Applying(P) |
| | | CO6 | CO6 Implement modules for Storage Management and Disk Scheduling in Operating Systems. (Cognitive knowledge: Apply) | Applying(P) |