Mahavir Education Trust's
Shah & Anchor Kutchhi Engineering College,
Chembur, Mumbai 400 088
UG Program in Information Technology

Academic Year 2018-19

Unique Course Number: ITC301	Course: Applied Mathematics-III
1.ITC301.1	Apply the Set theory and Relation concepts.
1.ITC301.2	Apply the Functions and define the recursive functions.
1.ITC301.3	Apply Laplace transform to different applications.
1.ITC301.4	Apply Inverse Laplace transform to different applications.
1.ITC301.5	Identify the permutations and combinations.
1.ITC301.6	Define variable and also identify the mapping.

Unique Course Number: ITC302	Course: Logic Design
ITC302.1	Understand the concepts of various components to design stable analog circuits
ITC302.2	Represent numbers and perform arithmetic operations
ITC302.3	Minimize the Boolean expression using Boolean algebra and design it using logic gates
ITC302.4	Analyze and design combinational circuit.
ITC302.5	Design and develop sequential circuits
ITC302.6	Translate real world problems into digital logic formulations using VHDL

Unique Course Number: ITL301	Course: Digital Design Lab
ITL301.1	Minimize the Boolean algebra and design it using logic gates.
ITL301.2	Analyze and design combinational circuits.
ITL301.3	Realize given function using combinational circuit.
ITL301.4	Design and develop sequential circuits.
ITL301.5	Implement digital systems using programmable logic devices.
ITL301.6	Translate real world problems into digital logic formulation using VHDL.

Unique Course Number: ITC303	Course: Data Structures & Analysis
2.ITC303.1	Understand use of different data structures & Analysis of algorithm.
2.ITC303.2	Implement operations like searching, insertion, and deletion, traversing mechanism etc on Linear data structures
2.ITC303.3	Identify different applications of various linear data structures.
2.ITC303.4	Implement & Compare appropriate sorting/searching technique for given problem.
2.ITC303.5	Implement operations like searching, insertion, and deletion, traversing mechanism etc on nonlinear data structures.
2.ITC303.6	Identify different applications of various non-linear data structures.

Unique Course Number: ITL302	Course: Data Structures Lab
2.ITL302.1	Implement operations like searching, insertion, and deletion, traversing mechanism etc on linear data structures.
2.ITL302.2	Implement applications of various linear data structures.
2.ITL302.3	Implement & Compare appropriate sorting/searching technique for given problem.
2.ITL302.4	Implement operations like searching, insertion, and deletion, traversing mechanism etc on nonlinear data structures.
2.ITL302.5	Implement applications of various non-linear data structures.
2.ITL302.6	Apply the Knowledge to implement data structure based practical application.

Unique Course Number: ITC304	Course: Database Management System
3.ITC304.1	Explain features of DBMS and Relational Database.
3.ITC304.2	Design Conceptual model using ER and construct queries
3.ITC304.3	Create and populate RDBMS using queries
3.ITC304.4	Retrieve information using complex SQL queries
3.ITC304.5	Analysis Database scheme using normalization and design Database
3.ITC304.6	Build indexing mechanism for efficient retrieval of information
Course: SQL Lab	

3.ITL303.1	Construct problem definition and implement database for same
3.ITL303.2	Design Conceptual model using ER and construct queries
3.ITL303.3	Create and populate RDBMS using queries
3.ITL303.4	Retrieve information using complex SQL queries
3.ITL303.5	Analysis Database scheme using normalization and design Database
3.ITL303.6	Implement indexes for database using B /B+ Trees
Unique Course Number: ITC305	**Course: Principle of Communications**
6.ITC305.1	Differentiate analog and digital communication systems
6.ITC305.2	Identify different types of noise occurred, its minimization and able to apply Fourier analysis in frequency & time domain to quantify bandwidth requirement of variety of analog and digital communication systems.
6.ITC305.3	Design generation & detection AM, DSB, SSB, FM transmitter and receiver
6.ITC305.4	Apply sampling theorem to quantify the fundamental relationship between channel bandwidth, digital symbol rate and bit rate
6.ITC305.5	Explain different types of line coding techniques for generation and detection of signals.
6.ITC305.6	Describe Electromagnetic Radiation and propagation of waves.
Unique Course Number: ITL304	**Course: Java Programming Lab**
2.ITL304.1	Implement Object Oriented programming concept using basic syntaxes of control Structures, strings and function for developing skills of logic building activity.
2.ITL304.2	Identify classes, objects, members of a class and the relationships among them needed for a finding the solution to specific problem
2.ITL304.3	Demonstrates how to achieve reusability using inheritance, interfaces and packages and describes faster application development can be achieved.
2.ITL304.4	Demonstrate understanding and use of different exception handling mechanisms and concept of multithreading for robust faster and efficient application development.
2.ITL304.5	Identify and describe common abstract user interface components to design GUI in Java using Applet & AWT along with response to events
2.ITL304.6	Identify, Design & develop complex Graphical user interfaces using principal Java Swing classes based on MVC architecture