



**Samarth Samaj's
Shivajirao S. Jondhale College of Engineering Dombivli (E)
(Affiliated to University of Mumbai, Approved by AICTE)**

Information Technology Department

PROGRAM OUTCOMES (POS)

- PO1: Ability to apply knowledge of maths, applied science, electronics, communication and Information Technology fundamentals.
- PO2: Ability to identify, analyze define problem and computing requirements appropriate to its solution.
- PO3: Ability to design, build and evaluate software and hardware solution for Information Technology related problems.
- PO4: Ability to investigate theoretical models of computing and machine learning algorithms.
- PO5: Ability to use open source Software tools to solve interactive applications.
- PO6: Ability to recognize local and the global impact of Information Technology solution on Individual, organization and society.
- PO7: Ability to integrate sustainable Information Technology based solution into the user environment effectively.
- PO8: Ability to apply knowledge of Information Technology in profession ethically.
- PO9: Ability to communicate and function effectively in teams to accomplish a common goal to carry out multidisciplinary tasks.
- PO10: Ability to build confidence for self education through verbal and written communication.
- PO11: Ability to apply tools and techniques for project management.
- PO12: Ability to adopt latest trends in Information Technology for lifelong learning process.

PROGRAM SPECIFIC OUTCOMES (PSOs)

- PSO1:-Ability to understand the concepts and key issues in data management and its associated Fields to achieve adequate perspectives in various applications
- PSO2:-Ability to design, implement solutions for information and network security.



SHIVAJIRAO S. JONDHALE COLLEGE OF ENGINEERING

Sonarpada, Dombivli (East)

(Approved by AICTE, Recognized by Government of Maharashtra & Affiliated to University of Mumbai - Estd. 1999 -

Department of Information Technology

ODD SEM

Second Year(SE) SEM 3 Academic Year:2016-2017 (Revised course 2012)

Course code	Course Name	Course Outcomes
SEITC301	Applied Mathematics-III*	SEITC301.1 Understand the basic knowledge of Laplace Transform SEITC301.2 understand the concept of inverse laplace transform of various functions and its applications in solving differential equations SEITC301.3 Understand the periodic function by Fourier series and complex form of fourier series and Fourier Transforms. SEITC301.4 understand the concept of vector algebra and vector differentiation SEITC301.5 understand the concept of vector integral in Green's theorem,Stoke's theorem. SEITC301.6 Understand complex variables theory ,applications of harmonic conjugate to get orthogonal trajectories and analytic function and understand the concept of Bessel's Functions.
SEITC302	Data Structure & Algorithm Analysis	SEITC302.1. Students should be able understand fundamental concepts related to the data structure and choose appropriate data structure as applied to specified problem definition and analysis the algorithm. SEITC302.2. Student should be able to understand Abstract Data Type and analyze run time calculation for specific problem. SEITC302.3. Students should be able to design and implement of stack, queue, linked list, Double-ended Queues, priority queue SEITC302.4. Students should be able to design and implement Trees, Tree Traversals , Binary Trees, Expression Trees, AVL Trees SEITC302.5. Students should be able to design and implement sorting like heap sort, merge sort, quick sort, insertion sort SEITC302.6. Students should be able to design and implement Graph Traversal techniques ,Shortest Path using dijkstra's algorithm, kruskals algorithm, and Minimum spanning Trees
SEITC303	Object Oriented Programming Methodology*	SEITC303.1.To understand the basic concepts of object oriented programming SEITC303.2. To solve computational problems using basic constructs. SEITC303.3.To model real world scenario using class diagram. SEITC303.4.To exhibit communication between 2 objects using sequence diagram. SEITC303.5.To design and implement programs on exceptions, multi-threading and applets. SEITC303.6. To design and implement data flow diagrams for various problems.
SEITC304	Analog & Digital Circuits	SEITC304.1. State various analog components and understand their working principle SEITC304.2.To understand electronic components and design of analog electronic circuits SEITC304.3.To have knowledge of number system and codes used in computation SEITC304.4.To learn Boolean algebra, logic gates and designing of Digital circuits SEITC304.5.To introduce VHDL fundamentals SEITC304.6.To develop basic awareness about digital systems and concepts of Microprocessor and Microcontroller systems
SEITC305	Database Management Systems	SEITC305.1.To describe data models and schemas in DBMS SEITC305.2.To understand and implement the features of database management systems and Relational database SEITC305.3.To implement relational databases for various applications using SQL language. SEITC305.4.To understand the functional dependencies and design of the database. SEITC305.5.To understand the concept of Transaction and Query processing SEITC305.6.Understand the concept of a database security, including concurrency control, backup and recovery, and data object locking and protocols.
SEITC306	Principles of Analog & Digital Communication.	SEITC306.1 Learner will be able to understand basic communication systems, types of channels, spectrum, need for modulation. SEITC306.2 Learner will be able to understand different types of noise, s/n ratio calculations ,fourier transform. SEITC306.3 Learner will be able to understand AM, FM modulation and demodulation, types of AM ,Spectrum, waveforms, bandwidth and power calculations.AM transmitter and receivers with characteristics , FM generation Pre -emphasis and De-emphasis. SEITC306.4 Learner will be able to understand sampling theorem, types of pulse modulation. SEITC306.5 Learner will be able to understand digital communication system, analog to digital conversion and basic multiplexing techniques and its application. SEITC306.6 Learner will be able to understand different digital modulation techniques and line coding

Second Year(SE) SEM 3 Academic Year:2017-18(Choice based)

Course code	Course Name	Course Outcomes
ITC301	Applied Mathematics III	ITC301.1 Understand the basic knowledge of Laplace Transform ITC301.2 understand the concept of inverse laplace transform of various functions and its applications in solving differential equations ITC301.3 Understand the periodic function by Fourier series and complex form of fourier series and Fourier Transforms. ITC301.4 understand the concept of vector algebra and vector differentiation ITC301.5 understand the concept of vector integral in Green's theorem,Stoke's theorem. ITC301.6 Understand complex variables theory ,applications of harmonic conjugate to get orthogonal trajectories and analytic function and understand the concept of Bessel's Functions.

SEITC302	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.
SEITC303	Data Structures & Analysis	ITC303.1. Select appropriate data structures as applied to specified problem definition. ITC303.2. Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures. ITC303.3. Students will be able to implement Linear and Non-Linear data structures. ITC303.4. Implement appropriate sorting/searching technique for given problem. ITC303.5. Design advance data structure using Non-Linear data structure. ITC303.6. Determine and analyze the complexity of given Algorithms.
SEITC304	Database Management System	ITC304.1 Explain the features of database management systems and Relational database ITC304.2. Design conceptual models of a database using ER modeling for real life applications and also construct queries in Relational Algebra ITC304.3. Create and populate a RDBMS for a real life application, with constraints and keys, using SQL. ITC304.4. Retrieve any type of information from a database by formulating complex queries in SQL. ITC304.5. Analyze the existing design of a database schema and apply concepts of normalization to design an optimal database. ITC304.6. Build indexing mechanisms for efficient retrieval of information from a database.
SEITC305	Principle of Communications	ITC305.1. Differentiate analog and digital communication systems 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. ITC305.3. Design generation & detection AM, DSB, SSB, FM transmitter and receiver. ITC305.4. Apply sampling theorem to quantify the fundamental relationship between channel bandwidth, digital symbol rate and bit rate ITC305.5. Explain different types of line coding techniques for generation and detection of signals. ITC305.6. Describe Electromagnetic Radiation and propagation of waves.
SEITL301	Digital Design Lab	ITL301.1: Students will be able to understand and implement the concept of basic components to design digital circuit. ITL301.2: Students will be able to understand Boolean expression using Boolean algebra and design it using basic gates and universal gates. ITL301.3: Students will be able to analyze and design combinational circuit. Design and develop sequential circuits. ITL301.4: Students will be able to translate real world problem into digital logic formulation using VHDL ITL301.5: Students will be able to translate real world problem into digital logic formulation using VHD
SEITL302	Data Structures Lab	ITL302.1. Select appropriate data structures as applied to specified problem definition. ITL302.2. Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures. ITL302.3. Students will be able to implement Linear and Non-Linear data structures. ITL302.4. Implement appropriate sorting/searching technique for given problem. ITL302.5. Design advance data structure using Non-Linear data structure. ITL302.6. Determine and analyze the complexity of given Algorithms.
SEITL303	SQL Lab	ITL303.1 Construct problem definition statements for real life applications and implement a database for the same. ITL303.2. Design conceptual models of a database using ER modeling for real life applications and also construct queries in Relational Algebra. ITL303.3. Create and populate a RDBMS, using SQL. ITL303.4. Write queries in SQL to retrieve any type of information from a data base. ITL303.5. Analyze and apply concepts of normalization to design an optimal database. ITL303.6. Implement indexes for a database using techniques like B or B+ trees.
SEITL304	Java Programming Lab	ITL304.1. Implement Object Oriented programming concept using basic syntaxes of control Structures, strings and function for developing skills of logic building activity. ITL304.2. Identify classes, objects, members of a class and the relationships among them needed for finding the solution to specific problem. ITL304.3. Demonstrates how to achieve reusability using inheritance, interfaces and packages and describes faster application development can be achieved. ITL304.4. Demonstrate understanding and use of different exception handling mechanisms and concept of multithreading for robust faster and efficient application development. ITL304.5. Identify and describe common abstract user interface components to design GUI in Java using Applet & AWT along with response to events. ITL304.6. Identify, Design & develop complex Graphical user interfaces using principal Java Swing classes based on MVC architecture.

EVEN Semester
Second Year(SE) SEM 4 Academic Year:2016-2017 (Revised course 2012)

Course code	Course Name	Course Outcomes
SEITC401	Applied Mathematics-IV*	SEITC401.1 Students in this course will apply the method of solving complex integration and computing residues. Use residues to evaluate various contour integrals. SEITC401.2 Demonstrate ability to manipulate matrices and compute eigen values and eigenvectors. SEITC401.3 Students in this course will apply the Procedure and methods to solve technical problems.

SEITC402	Computer Networks	SEITC402.1 To be familiar with the basics of data communication. SEITC402.2 To be familiar with the basics of Computer networks and working of Internet. SEITC402.3 To be familiar with various types of computer networks. SEITC402.4 To have experience in designing communication protocols. SEITC402.5 To be exposed to the TCP/IP protocol suite. SEITC402.6 To understand the working of Packet Switched network (PSN). SEITC402.7 To be familiar with Windows and UNIX networking style. SEITC402.8 To be familiar with Windows and UNIX networking style.
SEITC403	Computer Organization and Architecture*	SEITC403.1 Students will understand the basic structure of computer. SEITC403.2. Students will able to perform computer arithmetic operations. SEITC403.3. Students will understand the control unit operation. SEITC403.4. Students will able to design memory organization that uses banks for different word size operations and concept of cache memory. SEITC403.6. Students will understand the concept of I/O organization. SEITC403.7. Students will able to conceptualize instruction level parallelism.
SEITC404	Automata Theory	SEITC404.1 Recognizing Finite Automata concepts and Regular Language. SEITC404.2 Identify and convert Grammar SEITC404.3 Implement Automata and Turing Machine.
SEITC405	Web Programming	SEITC405.1: Learn basics of web architecture and web development. SEITC405.2: Acquire the knowledge of tools used in industry for web application development. SEITC405.3: Create the web application using tools and techniques learned.
SEITC406	Information Theory and Coding	SEITC406.1 Ability of students to understand true meaning of Information and Entropy SEITC406.2 Ability of students to understand aspects of information i.e. compression SEITC406.3 Ability of students to understand aspects of information i.e.error control SEITC406.4 Ability of students to understand mathematical foundation of Information SEITC406.5 Ability of students to understand aspects of information i.e.security

Second Year(SE) SEM 4 Academic Year:2017-18(Choice based)

Course code	Course Name	Course Outcomes
SEITC401	Applied Mathematics-IV	SEITC401.1 Apply the Number Theory to different applications using theorem. SEITC401.2 Apply probability and understand PDF. SEITC401.3 Understand sampling theory and correlation. SEITC401.4 Apply the graphs and trees concepts to different applications. SEITC401.5 Understand group's theory. SEITC401.6 Understand the Lattice theory.
SEITC402	Computer Networks	SEITC402.1 Describe the functions of each layer in OSI and TCP/IP model. SEITC402.2 Explain the functions of Application layer and Presentation layer paradigms and Protocols. SEITC402.3 Describe the Session layer design issues and Transport layer services SEITC402.4 Classify the routing protocols and analyze how to assign the IP addresses for the given network. SEITC402.5 Describe the functions of data link layer and explain the protocols. SEITC402.6 Explain the types of transmission media with real time applications.
SEITC403	Operating Systems	SEITC403.1 Describe the important computer system resources and the role of operating system in their management policies and algorithms. SEITC403.2 Understand the process management policies and scheduling of processes by CPU SEITC403.3 Evaluate the requirement for process synchronization and coordination handled by operating system SEITC403.4 Describe and analyze the memory management and its allocation policies. SEITC403.5 Identify use and evaluate the storage management policies with respect to different storage management technologies. SEITC403.6 Identify the need to create the special purpose operating system.
SEITC404	Computer Organization and Architecture	SEITC404.1 Describe basic organization of computer and the architecture of 8086 microprocessor. SEITC404.2 Implement assembly language program for given task for 8086 microprocessor SEITC404.3 Demonstrate control unit operations and conceptualize instruction level parallelism SEITC404.4 Demonstrate and perform computer arithmetic operations on integer and real numbers SEITC404.5 Categorize memory organization and explain the function of each element of a memory hierarchy. SEITC404.6 Identify and compare different methods for computer I/O mechanisms
SEITC405	Automata Theory	SEITC405.1 Understand, design, construct, analyze and interpret Regular languages, Expression and Grammars. SEITC405.2 Design different types of Finite Automata and Machines as Acceptor, Verifier and Translator. SEITC405.3 Understand, design, analyze and interpret Context Free languages, Expression and Grammars. SEITC405.4 Design different types of Push down Automata as Simple Parser. SEITC405.5 Design different types of Turing Machines as Acceptor, Verifier, Translator and Basic computing machine. SEITC405.6 Compare, understand and analyze different languages, grammars, Automata and Machines and appreciate their power and convert Automata to Programs and Functions
SEITL401	Networking Lab	SEITL401.1 Execute and evaluate network administration commands and demonstrate their use in different network scenarios SEITL401.2 Demonstrate the installation and configuration of network simulator. SEITL401.3 Demonstrate and measure different network scenarios and their performance behavior. SEITL401.4 Analyze the contents the packet contents of different protocols. SEITL401.5 Implement the socket programming for client server architecture. SEITL401.6 Design and setup a organization network using packet tracer.

SEITL402	Unix Lab	SEITL402.1 Identify the basic Unix general purpose commands. SEITL402.2 Apply and change the ownership and file permissions using advance Unix commands. SEITL402.3 Use the awk, grep, perl scripts. SEITL402.4 Implement shell scripts and sed. SEITL402.5 Apply basic of administrative task. SEITL402.6 Apply networking Unix commands.
SEITL403	Microprocessor Programming Lab	SEITL403.1 Apply the fundamentals of assembly level programming of microprocessors. SEITL403.2 Build a program on a microprocessor using arithmetic & logical instruction set of 8086. SEITL403.3 Develop the assembly level programming using 8086 loop instruction set. SEITL403.4 Write programs based on string and procedure for 8086 microprocessor. SEITL403.5 Analyze abstract problems and apply a combination of hardware and software to address the problem SEITL403.6 Make use of standard test and measurement equipment to evaluate digital interfaces.
SEITL404	Python Lab	SEITL404.1 Describe the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python SEITL404.2 Express different Decision Making statements and Functions SEITL404.3 Interpret Object oriented programming in Python SEITL404.4 Understand and summarize different File handling operations SEITL404.5 Explain how to design GUI Applications in Python and evaluate different database operations SEITL404.6 Design and develop Client Server network applications using Python

ODD SEM

Third Year(TE) SEM 5 Academic Year:2016-2017 (Revised course 2012)

Course code	Course Name	Course Outcomes
TEITC501	Computer Graphics and Virtual Reality	TEITC501.2 Design and implement full-fledged real life applications integrated with database systems. TEITC501.3 Clearly understand how databases are actually stored and accessed; how transaction ACID properties are maintained and how a database recovers from failures. TEITC501.4 Apply security controls to avoid any type of security incidents on vital database systems. TEITC501.5 Design advanced data systems using Object based systems or Distributing databases for better resource management. TEITC501.6 Understand the importance of enterprise data and be able to organize data to perform analysis on the data and take strategic decisions.
TEITC502	Operating Systems	TEITC502.1 Understand what makes a computer system function and the primary PC components. TEITC502.2 Understand the working of an OS as a manager of various resources. TEITC502.3 Implement some of the functions of OS such as scheduling policies, page replacement algorithms. TEITC502.4 Understand the concept and implementation of virtual memory. TEITC502.5 Understand and Implement Bankers Algorithm for deadlock avoidance with deadlock prevention. TEITC502.6 Understand concept of modern OS such as android, Linux etc.
TEITC503	Microcontroller and Embedded Systems	TEITC503.1 Ability to understand basic structure of Embedded system. TEITC503.2 Ability to understand basic structure of 8051 Microcontroller. TEITC503.3 Ability to program Microcontroller. TEITC503.4 Ability to understand basic structure of ARM. TEITC503.5 Ability to recognize concept of Real Time Operating System. TEITC503.6 Ability to design conceptual Embedded system.
TEITC504	Advanced Database Management Systems	TEITC504.1 Construct complex queries using SQL to retrieve and manipulate information in a database. TEITC504.2 Design and implement full-fledged real life applications integrated with database systems. TEITC504.3 Clearly understand how databases are actually stored and accessed; how transaction ACID properties are maintained and how a database recovers from failures. TEITC504.4 Apply security controls to avoid any type of security incidents on vital database systems. TEITC504.5 Design advanced data systems using Object based systems or Distributing databases for better resource management. TEITC504.6 Understand the importance of enterprise data and be able to organize data to perform analysis on the data and take strategic decisions
TEITC505	Open Source Technologies	TEITC505.1 To learn FOSS TEITC505.2 To install and work on Linux. To perform shell programming. TEITC505.4 To learn system, network and security administration. TEITC505.5 To learn open source tools like OpenVas, Drupal and Eclipse. TEITC505.6 Discuss and develop Android Applications
TEITC506	Business Communication and Ethics*	TEITC506.1 Communicate effectively in both verbal and written form demonstrate knowledge of professional and ethical responsibilities. TEITC506.2 Participate and succeed in Campus placements and compitative examinations like GATE, CET. TEITC506.3 Development of Interpersonal Skills of Students. TEITC506.4 Have education necessary for understanding the impact of enginnering solutions on Society and demonstrate awareness of contemporary issues. TEITC506.5 They know Corporate Ethics and Etiquettes.

EVEN SEM

Third Year(TE) SEM 6 Academic Year:2017-18(Revised course 2012)

Course code	Course Name	Course Outcomes
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TEITC601	Software Engineering	TEITC601.1 Meet the Information Technology Program Objectives of identifying and solving engineering problems. TEITC601.2 To understand principles, concepts, methods, and techniques of the software engineering approach to producing quality software for large, complex systems. TEITC601.3 To function effectively as a member of a team engaged in technical work. TEITC601.4 To think critically about ethical and social issues in software engineering for different applications. TEITC601.5 An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. TEITC601.6 An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. TEITC601.7 The ability to analyze, design, verifies, validate, implement, apply, and maintain software systems.
TEITC602	Distributed Systems	TEITC602.1 Understand fundamental principles of Distributed Systems along with design and implementation of key mechanisms. TEITC602.2 Understand and implement Clock Synchronization, Election Algorithms, Mutual Exclusion algorithm. TEITC602.3 Understand Process and Resource Scheduling. TEITC602.4 Understand the message communication and implement remote procedure call and Remote method invocation (RPC and RMI) along with group communication. TEITC602.5 Emphasis is on developing applications using current distributed computing technologies like EJB, CORBA and .NET TEITC602.6 Student should be able to develop/design distributed system/applications for an enterprise using SOA.
TEITC603	System and Web Security	TEITC603.1 Design Security protocols and methods to solve the specific security problem. TEITC603.2 Understand a variety of generic security threats, vulnerabilities and identify & analyze particular security problems for given application. TEITC603.3 Familiar with current issues and directions of security. TEITC603.4 Understand the principles and practices of cryptographic technique. TEITC603.5 Ability to apply modern security tools to solve various security issues. TEITC603.6 Ability to identify, analyze issues and integrated effects of threats in different domains like network, operating systems, and web.
TEITC604	Data Mining and Business Intelligence	TEITC604.1 Demonstrate an understanding of the importance of data mining and the principles of business intelligence TEITC604.2 Able to prepare the data needed for data mining algorithms in terms of attributes and class inputs, training, validating, and testing files. TEITC604.3 Implement the appropriate data mining methods like classification, clustering or association mining on large data sets. TEITC604.4 Define and apply metrics to measure the performance of various data mining algorithms. TEITC604.5 Apply BI to solve practical problems : Analyze the problem domain, use the data collected in enterprise apply the appropriate data mining technique, interpret and visualize the results and provide decision support. TEITC604.6 Apply any one BI tool on business problem.
TEITC605	Advance Internet Technology	TEITC605.1 To study the basics of search engines and algorithm based ranking TEITC605.2 To analyze search engines TEITC605.3 To learn keyword generation using Google Analytics, etc. TEITC605.4 To design responsive web pages TEITC605.5 To study RIA and Mashup techniques

ODD SEM

Final Year(BE) SEM 7 Academic Year:2016-2017 (Revised course 2012)

Course code	Course Name	Course Outcomes
BEITC701	Software Project Management	BEITC701.1 Articulate similarities and differences between IT projects and other types of projects. BEITC701.2 Develop an IT project by establishing a business case, a project charter and work breakdown structure for an IT project. BEITC701.3 Estimate resources (time, cost, human being, etc.) and Establish task inter-dependencies BEITC701.4 Construct and analyze a network diagram. BEITC701.5 Identify IT project risks and develop risk mitigation strategies also ensure the quality of the project using various standards. BEITC701.6 Demonstrate Team work and team spirit and how to overcome the conflicts.
BEITC702	Cloud Computing	BEITC702.1 Differentiate different cloud computing techniques. BEITC702.2 Compare various cloud computing providers/ software. BEITC702.3 Handle open source cloud implementation and administration BEITC702.4 Understand risks involved in cloud computing. BEITC702.5 Implement a private cloud using Eucalyptus/ open-stack. BEITC702.6 Programming using Google App Engine/ Python. BEITC702.7 Study the programming support for Amazon EC2.
BEITC703	Intelligent System	BEITC703.1 Develop a basic understanding of the building blocks of AI as presented in terms of intelligent agents. BEITC703.2 Choose an appropriate problem-solving method and knowledge-representation scheme. BEITC703.3 Analyze and formalize the problem (as a state space, graph, etc.) and select the appropriate search method. BEITC703.4 Develop/demonstrate/ build simple intelligent systems or classical toy problems using different AI techniques. BEITC703.5 Apply artificial intelligence techniques, including search heuristics, knowledge representation, planning and reasoning. BEITC703.6 Analyze problem specifications and derive appropriate solution techniques for

BEITC704	Wireless Technology	BEITC704.1 Learner will be able to understand the fundamentals and new trends in mobile/wireless communication. BEITC704.2 Learner will be able to understand different multiple access techniques, spread spectrum, the evolution of cellular networks 1G/2G/3G/4G. BEITC704.3 Learner will be able to understand the cellular concepts ,designandevaluate system capacity of cellular systems. BEITC704.4 Learner will be able to understand architectures,frame structures and channels of GSM,CDMA . BEITC704.5 Learner will be able to understand importance of WLL system. BEITC704.6 Learner will be able to understand WLAN technologies,topologies,architectures,standards BEITC704.7 Learner will be able to learn and compare WPAN technologies, WiMax, LTE wireless sensor network. BEITC704.8 Learner will be able to identify and understand security issues in wireless system.
BEITC7053	E-Commerce & E-Business	BEITC7053.1 Understand the concepts & identify the infrastructure & technological requests for website development. BEITC7053.2 Identify the E-business modules & the various strategic involved with E-business& E-commerce BEITC7053.3 Applying various E-marketing & promotional strategic & E-payment. BEITC7053.4 Understand information flow & navigation & develop the E-commerce & E-business website. BEITC7053.5 Apply modern engineering tools to development of application. BEITC7053.6 Analyze the technological requirement for development of various modules of E-commerce & E-business.

EVEN SEM

Final Year(BE) SEM 8 Academic Year:2017-18 (Revised course 2012)

Course code	Course Name	Course Outcomes
BEITC801	Storage Network Management and Retrieval	BEITC801.1 Evaluate storage architectures BEITC801.2 Analyze the storage subsystems, SAN, NAS, and IP-SAN. BEITC801.3 Choose an appropriate method for backup and recovery. BEITC801.4 Examine emerging technologies including IP-SAN. BEITC801.5 Define information retrieval in storage network. BEITC801.6 Identify different storage virtualization technologies.
BEITC802	Big Data Analytics	BEITC802.1 Identify traditional v/s big data business approach. BEITC802.2 Understand the key issues in big data management and its associated applications in intelligent business and scientific computing. BEITC802.3 Acquire fundamental enabling techniques and scalable algorithms like Hadoop, Map Reduce and NO SQL in big data analytics. BEITC802.4 Interpret business models and scientific computing paradigms, and apply software tools for big data analytics. BEITC802.5 Achieve adequate perspectives of big data analytics in various applications like recommender systems, social media applications etc. BEITC802.6 Implement real life data application.
BEITC803	Computer Simulation and Modeling	BEITC803.1 Understand the meaning of simulation and its importance in business, science, engineering, industry and services BEITC803.2 Identify the common applications of discrete-event system simulation. BEITC803.3 Practice formulation and modeling skills. BEITC803.4 Understand simulation languages BEITC803.5 Ability to analyze events and inter-arrival time, arrival process, queuing strategies, resources and disposal of entities BEITC803.6 An ability to perform a simulation using spreadsheets as well as simulation language/package BEITC803.7 Ability to generate pseudorandom numbers using the Linear Congruential Method BEITC803.8 Ability to perform statistical tests to measure the quality of a pseudorandom number generator BEITC803.9 Ability to define random variate generators for finite random variables BEITC803.10 Ability to analyze and fit the collected data to different distributions BEITC803.11 Ability to check whether the model designed is the exact replica of the system BEITC803.12 Understand the relation between probability and statistics and simulation and modeling
BEITC8046	SoftwareTesting & Quality Assurance	BEITC8046.1 Identify the reasons for bugs and analyze the principles in software testing to prevent and remove bugs. BEITC8046.2 Implement various test processes for quality improvement BEITC8046.3 Apply the software testing techniques in commercial environments BEITC8046.4 Provides practical knowledge of a variety of ways to test software BEITC8046.5 Understanding some of the trade-offs between testing techniques. BEITC8046.6 Familiar with the open source testing tools.