DON BOSCO INSTITUTE OF TECHONOLGY, KURLA, MUMBAI

Department of IT ,(Even semester, 2017-18)

SE IT

Course Name:	Applied Mathematics – IV		
Course Code	ITC401		
Faculty Name:	Revathy Sundararajan		
Year	2	**Sem**	IV

CO Number	Course Outcome
ITC401.1	Students will be able to Define prime numbers, composite numbers Identify discrete and continuous random variables Obtain mean and variance and mgf of discrete and continuous random variables Identify population, sample (small and large) Define Karl Pearson's correlation coefficient and Spearman's rank correlation coefficient
ITC401.2	Students will be able to Identify primes in any given range of integers Factorize 4 digit numbers into prime factors Obtain pdf and cdf of discrete and continuous random variables (including special discrete – Binomial and Poisson and special continuous – normal) Calculate various probabilities of random variables following Binomial Poisson and Normal distributions Karl-Pearson's Coefficient of Correlation and Spearman's Rank Correlation and regression lines Infer if a hypothesis testing is one-tailed or two tailed, identify critical region and the corresponding z—values based on the required probabilities on the population
ITC401.3	Students will be able to Obtain the Euler's totient function, quadratic residues, Legendre and Jacobi symbols Obtain MGF and hence obtain the mean and variance (up to first 4 moments) of a random variable Obtain probabilities using correct interpretation of Binomial distribution, Poisson and normal approximations to binomial distribution and also Binomial approximation to normal distribution Apply Central Limit Theorem to obtain probabilities Test if there is significant difference between population mean and sample mean and two population means.

Course Name:	Computer Networks		
Course Code	ITC402		
Faculty Name:	Nilesh Ghavate		
Year	2	**Sem**	IV

CO Number	Course Outcome
ITC402.1	Describe the functions of each layer in OSI and TCP/IP model.
ITC402.2	Explain the functions of Application layer and Presentation layer paradigms and Protocols.
ITC402.3	Describe the Session layer design issues and Transport layer services.
ITC402.4	Classify the routing protocols and analyze how to assign the IP addresses for the given network.
ITC402.5	Describe the functions of data link layer and explain the protocols.
ITC402.6	Explain the types of transmission media with real-time applications.

Course Name:	Operating Systems		
Course Code	ITC403		
Faculty Name:	Tayyabli Sayyad		
Year	2	**Sem**	IV

CO Number	Course Outcome
ITC403.1	Describe the important computer system resources and the role of operating system in their management policies and algorithms
ITC403.2	Understand the process management policies and scheduling of processes by CPU
ITC403.3	Evaluate the requirement for process synchronization and coordination handled by operating system
ITC403.4	Describe and analyze the memory management and its allocation policies.
ITC403.5	Identify use and evaluate the storage management policies with respect to disk
ITC403.6	Identify the need to create the special purpose operating system.

Course Name:	Computer Organization and Architecture		
Course Code	ITC404		
Faculty Name:	Janhavi Baikerikar		
Year	2	**Sem**	IV

CO Number	Course Outcome
ITC 404.1	Describe basic organization of computer and the architecture of 8086 microprocessor.
ITC 404.2	Implement assembly language program for given task for 8086 microprocessor.
ITC 404.3	Demonstrate control unit operations and conceptualize instruction level parallelism.
ITC 404.4	Demonstrate and perform computer arithmetic operations on integer and real numbers.
ITC 404.5	Categorize memory organization and explain the function of each element of a memory Hierarchy.
ITC 404.6	Identify and compare different methods for computer I/O mechanisms.

Course Name:	Automata Theory		
Course Code	ITC405		
Faculty Name:	Uday		
Year	2	**Sem**	IV

CO Number	Course Outcome
ITC405.1	Understand, design, construct, analyze and interpret Regular languages, Expression and Grammars
ITC405.2	Design different types of Finite Automata and Machines as Acceptor, Verifier and Translator.
ITC405.3	Understand, design, analyze and interpret Context Free languages, Expression and Grammars.
ITC405.4	Design different types of Push down Automata as Simple Parser.
ITC405.5	Design different types of Turing Machines as Acceptor, Verifier, Translator and Basic computing machine.
ITC405.6	Compare, understand and analyze different languages, grammars, Automata and Machines and appreciate their power and convert Automata to Programs and Functions

Course Name:	Networking Lab		
Course Code	ITL401		
Faculty Name:	Nilesh Ghavate		
Year	2	**Sem**	IV

CO Number	Course Outcome
ITL401.1	Execute and evaluate network administration commands and demonstrate their use in different network scenarios
ITL401.2	Demonstrate the installation and configuration of network simulator.
ITL401.3	Demonstrate and measure different network scenarios and their performance behavior.
ITL401.4	Analyze the contents the packet contents of different protocols.
ITL401.5	Implement the socket programming for client server architecture.
ITL401.6	Design and setup a organization network using packet tracer.

Course Name:	Unix Lab		
Course Code	ITL402		
Faculty Name:	Aruna Khubalkar		
Year	2	**Sem**	IV

CO Number	Course Outcome
ITL402.1	Identify the basic Unix general purpose commands.
ITL402.2	Apply and change the ownership and file permissions using advance Unix commands.
ITL402.3	Use the awk, grep, perl scripts.
ITL402.4	Implement shell scripts and sed.
ITL402.5	Apply basic of administrative task.
ITL402.6	Apply networking Unix commands.

Course Name:	Microprocessor Programming Lab		
Course Code	ITL403		
Faculty Name:	Janhavi Baikerikar		
Year	2	**Sem**	IV

CO Number	Course Outcome
ITL 403.1	Apply the fundamentals of assembly level programming of microprocessors.
ITL 403.2	Build a program on a microprocessor using arithmetic & logical instruction set of 8086.
ITL 403.3	Develop the assembly level programming using 8086 loop instruction set
ITL 403.4	Write programs based on string and procedure for 8086 microprocessor
ITL 403.5	Analyze abstract problems and apply a combination of hardware and software to address the Problem
ITL 403.6	Make use of standard test and measurement equipment to evaluate digital interfaces.

Course Name:	Python Lab		
Course Code	ITL404		
Faculty Name:	Prasad Padalkar		
Year	2	**Sem**	IV

CO Number	Course Outcome
ITL404.1	Describe the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python
ITL404.2	Express different Decision Making statements and Functions
ITL404.3	Interpret Object oriented programming in Python
ITL404.4	summarize different File handling operations
ITL404.5	Explain how to design GUI Applications in Python and evaluate different database operations
ITL404.6	Design and develop Client Server network applications using Python

TE IT

Course Name:	Software Engineering		
Course Code	TEITC601		
Faculty Name:	Sushree Satapathy		
Year	3	**Sem**	VI

CO Number	Course Outcome
TEITC601.1	Meet the Information Technology Program Objectives of identifying, formulating and solving engineering problems.
TEITC601.2	To think critically about ethical, social and environmental issues and sustainability in software engineering for different applications.
TEITC601.3	To understand principles, concepts, methods, and techniques of the software engineering approach to producing quality software for large, complex systems.
TEITC601.4	Demonstrate an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
TEITC601.5	To recommend the techniques, skills, and modern engineering tools necessary for engineering practice.
TEITC601.6	To function effectively as a member of a team engaged in technical work.

Course Name:	Distributed Systems		
Course Code	TEITC602		
Faculty Name:	Sunantha K		
Year	3	**Sem**	VI

CO Number	Course Outcome
TEITC602.1	Students will be able to explain the fundamental Principles of DS along with design.
TEITC602.2	Students will be able to differntiate and build message communication, RMI, Clock synchronization and Election Algorithm.
TEITC602.3	Students will be able to construct applications using Tools/Technologies like EJB, CORBA and .NET.
TEITC602.4	Students will be able to demontrate enterprise service application using SOA.

Course Name:	System & Web Security		
Course Code	TEITC603		
Faculty Name:	Aruna Khubalkar		
Year	3	**Sem**	VI

CO Number	Course Outcome
TEITC603.1	Define Security goals and classify attacks. Also recall various cryprographic techniques.
TEITC603.2	Explain the basic idea behind authentication, access control, network and web security, and classify various models/protocols used for secure system design.
TEITC603.3	Explain issues and solutions related to program, network and web security.
TEITC603.4	Design and implement cryptographic techniques.
TEITC603.5	Apply methods for simulating authentication model, software attack and firewall designing secure system.
TEITC603.6	Analyze network and web secuirty attacks using tools/techniques.

Course Name:	Data Mining & Business Intelligence		
Course Code	TEITC604		
Faculty Name:	Tayyabli Sayyad		
Year	3	**Sem**	VI

CO Number	Course Outcome
TEITC604.1	Students will be able to relate to the importance of data mining and the principles of business intelligence.
TEITC604.2	Students will be able to prepare data needed for data mining algorithms in terms of attributes and class inputs, training, validating, and testing files.
TEITC604.3	Students will be able to implement appropriate data mining methods like classification, clustering or association mining on data sets.
TEITC604.4	Students will be able to measure the performance of various data mining algorithms.
TEITC604.5	Students will be able to apply BI to solve practical problems and help in Decision Support.

Course Name:	Advance Internet Technology		
Course Code	TEITC605		
Faculty Name:	Vaishali Kavathekar		
Year	3	**Sem**	VI

CO Number	Course Outcome
TEITC605.1	Student will be able to develop Keyword Generation using Google Analytics
TEITC605.2	Student will be able to create Responsive Web Design.
TEITC605.3	Student will be able to use Amazon/Google or yahoo for creating mashup.
TEITC605.4	Student will be able to analyze the new features of HTML5 & CSS3
TEITC605.5	Student will be able to evaluate SEO
TEITC605.6	Student will be able to analyze Rich Internet Application

BE IT

Course Name:	Storage Network Management and Retrieval		
Course Code	BEITC801		
Faculty Name:	Anagha Shastri		
Year	4	**Sem**	VIII

CO Number	Course Outcome
BEITC801.1	Students will be able to explain and compare various storage architecture like DAS, NAS, SAN, iSCSI,IP – SAN.
BEITC801.2	Students will be able to explain storage virtualization and different types of backup and BCP.
BEITC801.3	Students will be able to explain store and retrieve information efficienty using different types of queries.
BEITC801.4	Students will be able to implement/ simulate storage technologies like RAID, NAS, SAN etc.
BEITC801.5	Students will be able to evaluate storage architectures used in different senarios using case studies.

Course Name:	Big Data Analytics		
Course Code	BEITC802		
Faculty Name:	Sunantha K		
Year	4	**Sem**	VIII

CO Number	Course Outcome
BEITC802.1	Identify the key issues in big data management and its associated applications in intelligent business and scientific computing.
BEITC802.2	Solve fundamental enabling Techniques and scalable algorithms like Hadoop,PMapReduce & NoSql in big data analytics.
BEITC802.3	Analyze business models & scientific computing paradigms, and Interpret business models & scientific computing paradigms.
BEITC802.4	Formulate adequate perspective of big data and analytics in various applications like recommender system, social media application etc.

Course Name:	Computer Simulation and Modeling		
Course Code	BEITC803		
Faculty Name:	Prasad Padalkar		
Year	4	**Sem**	VIII

CO Number	Course Outcome
BEITC803.1	Student will be able to know the meaning of simulation, its importance, application domains, simulation tools and give appropriate terminologies.
BEITC803.2	Student will be able to explain simulation types, basics of RNG.
BEITC803.3	Students will be able to apply the modeling skills, simulate using spread sheet/language for a problem statement.
BEITC803.4	Students will be able to analyze the Monte carlo based systems as well as the dynamic event based system.
BEITC803.5	Students will be able to evaluate the choice of model / tool for simulation.
BEITC803.6	Student will be able to create a problem statement from given scenario for simulation.

Course Name:	Elective -II Soft Computing		
Course Code	BEITC8045		
Faculty Name:	Uday		
Year	4	**Sem**	VIII

CO Number	Course Outcome
BEITC8045.1	Ability to elaborate the importance of optimizations and its use in computer engineering fields and other domains.
BEITC8045.2	Students would understand inference systems and understand the efficiency of a hybrid system and Fuzzy Logic
BEITC8045.3	Ability to analyse the difference between various learning algorithms of Neural Networks.
BEITC8045.4	Ability to program and to explore practical applications of Neural Networks.
BEITC8045.5	Apply genetic algorithms to combinatorial optimization problems.
BEITC8045.6	Ability to hybridize Neural Networks and fuzzy logic to form a Neuro-fuzzy network.

Course Name:	Elective -II ERP		
Course Code	BEITC8041		
Faculty Name:	Vaishali Kavathekar		
Year	4	**Sem**	VIII

CO Number	Course Outcome
BEITC804.1	Students will be able to describe the basic structure of ERP and other technologies related to ERP.
BEITC804.2	Students will be able to analyze the business processes and implementation strategies used for ERP.
BEITC804.3	Students will be able to explain ERP tools and its benefits.
BEITC804.4	Students will be able to simulate life cycle of ERP using modern tools.
BEITC804.5	Students will be able to develop E-Commerce functionalities like E-Procurement, Shopping cart and Customer Management.
BEITC804.6	Students will be able to apply design principles for creating a web portal constituting modules of ERP.

Course Name:	PROJECT STAGE-II		
Course Code	BEITP805		
Faculty Name:	Tayyabli Sayyad		
Year	4	**Sem**	VIII

CO Number	Course Outcome
BETP805.1	Students will be able to convert the design of the proposed project into program code.
BETP805.2	Student will be able to collaborate and negotiate with team and communicate with peers.
BETP805.3	Student will be able to produce proper technical documentation of the work.
BETP805.4	Student will be able to demonstrate the model/product/prototype.