COURSE OUTCOMES FIFTH SEMESTER BE (COMPUTER ENGINEERING)

Course Title: DATABASES
Course Code: 5KE01

Course Outcomes :
Oncompletionofthecourse,thestudentswillbeable to

CO 1	Model, design and normalize databases for real life applications.
CO 2	Discuss data models, conceptualize and depict a database system using ER diagram.
CO 3	Query Database applications using Query Languages like SQL.
CO 4	Design & develop transaction processing approach for relational databases.
CO 5	Understand validation framework like integrity constraints, triggers and assertions.
CO 6	

Course Code: 5KE02
Course Title: COMPILERS

Oncompletion ofthecourse,thestudentswillbeableto

CO 1	Describe the fundamentals of compiler and various phases of compilers.
CO 2	Design and implement LL and LR parsers
CO 3	Solve the various parsing techniques like SLR, CLR, LALR.
CO 4	Examine the concept of Syntax-Directed Definition and translation.
CO 5	Assess the concept of Intermediate-Code Generation and run-time environment
CO 6	Explain the concept code generation and code optimization.

Course Code: 5KE03
Course Title: COMPUTER ORGANIZATION & ARCHITECTURE

Oncompletionofthecourse,thestudentswillbeable to:

CO 1	Discuss basic structure of computer.
CO 2	Understand the basic operation of CPU
CO 3	Compare and select various Memory and I/O devices as per requirement.
CO 4	Solve the concepts of number representation and their operation.
CO 5	Explain the concept of parallel processing and pipelining.
CO 6	

Course Code: 5KE04
Course Title: COGNITIVE TECHNOLOGIES

Oncompletionofthecourse,thestudentswillbeable to

CO 1	Describe the Cognitive computing and principles of cognitive systems.
CO 2	Identify role of Natural Language Processing in cognitive system.
CO 3	Outline application of advanced analytics in cognitive computing.
CO 4	Justify role of Cloud and Distributed Computing in Cognitive Computing.
CO 5	Assess the process of building a Cognitive Application.
CO 6	Identify the Emerging Areas and Future Applications of Cognitive Computing.

Course Code: 5KE04

Course Title: ADVANCE COMPUTER ARCHITECTURE

Oncompletionofthecourse,thestudentswillbeable to

CO 1	Describe Computational models and Computer Architectures.
CO 2	Discuss Concepts of parallel computer models.
CO 3	Explain Scalable Architectures, Pipelining, Superscalar processors, multiprocessors
CO 4	Distinguish the performance of pipelining and non-pipelining environment in a processor.

Course Code: 5KE04

Course Title: INTERNET OF THINGS

On completionofthecourse,thestudentswillbeable to:

CO 1	Understand the basics of IoT
CO 2	Understand design methodology and platforms involved in IoT
CO 3	Apply the knowledge to interface various sensors with IoT development
CO 4	Design and Implement IoT system for real time application.

Course Code: 5KE04

Course Title: GRAPHICS & VISUALIZATION

Oncompletionofthecourse,thestudentswillbeable to

CO 1	Explain fundamental concepts within computer graphics
CO 2	Understand the ideas in some fundamental algorithms for computer graphics and to some extent be able to compare and evaluate them
CO 3	Apply fundamental principles within interaction programming
CO 4	Understand fundamental concepts within information visualization and scientific visualization

Course Code: 5KE05
Course Title: PRINCIPLES OF MARKETING FORENGINEERING

Oncompletionofthecourse,thestudentswillbeable

CO 1	Identify the importance of the digital marketing for marketing success
CO 2	Manage customer relationships across all digital channels and build better customer relationships,
CO 3	Create a digital marketing plan, starting from the SWOT analysis and defining a target group,
CO 4	Identify digital channels, their advantages and limitations, to perceiving ways of their integration taking into consideration the available budget

Course Code: 5KE05
Course Title: FUNDAMENTALS OF FINANCE & ACCOUNTING

Oncompletionofthecourse,thestudentswillbeable to

CO 1	Define bookkeeping and accounting
CO 2	Explain the general purposes and functions of accounting
CO 3	Explain the differences between management and financial accounting
CO 4	Describe the main elements of financial accounting information – assets, liabilities, revenue and expenses
CO 5	Identify the main financial statements and their purposes.

Course Code:5KE05

Course Title: ENTREPRENEURSHIP

Oncompletionofthiscourse,thestudentsshouldbeableto:

CO 1	Analyze the business environment in order to identify business opportunities,
CO 2	Identify the elements of success of entrepreneurial ventures,
CO 3	Evaluate the effectiveness of different entrepreneurial strategies,
CO 4	Specify the basic performance indicators of entrepreneurial activity,
CO 5	Explain the importance of marketing and management in small businesses venture,
CO 6	Interpret their own business plan.

Course Code: 5KE06
Course Title: DATABASES-LAB

Oncompletionofthecourse,thestudentswillbeableto

CO 1	Design ER model for any kind of application.
CO 2	Design and develop database.
CO 3	Apply normalization.
CO 4	Query the database.
CO 5	Apply various integrity constraints
CO 6	Build indices, views
CO 7	Implement triggers, assertions.

Course Code:5KE07

Course Title: COMPILERS-LAB

Oncompletionofthecourse,thestudentswillbeableto

CO 1	Identify the fundamentals of compiler and its phases.
CO 2	Use the powerful compiler generation tools such as Lex and Yacc.
CO 3	Write a lexical scanner, either from scratch or using Lex
CO 4	Develop program for solving parser problems.
CO 5	Examine the various optimization techniques.

Course Code: 5KE04
Course Title: COGNITIVE TECHNOLOGIES

Oncompletionofthecourse,thestudentswillbeable to

CO 1	Describe the Cognitive computing and principles of cognitive systems.
CO 2	Identify role of Natural Language Processing in cognitive system
CO 3	Outline application of advanced analytics in cognitive computing.
CO 4	Justify role of Cloud and Distributed Computing in Cognitive Computing.
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Course Code: 5KE04

Course Title: ADVANCECOMPUTERARCHITECTURE

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Course Code: 5KE04
Course Title: INTERNETOFTHINGS

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CO 1	Understand the basics of IoT
CO 2	Understand design methodology and platforms involved in IoT
CO 3	Apply the knowledge to interface various sensors with IoT development
CO 4	Design and Implement IoT system for real time application.

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Oncompletionofthecourse,thestudentswillbeable to

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CO 2	Understand the ideas in some fundamental algorithms for computer graphics and to some extent be able to compare and evaluate them
CO 3	Apply fundamental principles
CO 4	Understand fundamental concepts within information visualization and scientific visualization

Course Code: 5KE05

Course Title: PRINCIPLESOFMARKETINGFORENGINEERING

CourseOutcomes(ExpectedOutcome):

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CO 2	Manage customer relationships across all digital channels and build better customer relationships,
CO 3	Create a digital marketing plan, starting from the SWOT analysis and defining a target group
CO 4	Identify digital channels, their advantages and limitations, to perceiving ways of their integration taking into consideration the available budget

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Course Title: FUNDAMENTALS OF FINANCE & ACCOUNTING

Oncompletionofthecourse,thestudentswillbeable to

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Course Title: ENTREPRENEURSHIP

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Course Code:5KE06
Course Title: DATABASES-LAB

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CO 4	Query the database.
CO 5	Apply various integrity constraints
CO 6	Build indices, views
CO 7	Implement triggers, assertions.

Course Code: 5KE07
Course title: COMPILERS-LAB

Oncompletionofthecourse,thestudentswillbeableto

CO 1	Identify the fundamentals of compiler and its phases.
CO 2	Use the powerful compiler generation tools such as Lex and Yacc.
CO 3	Write a lexical scanner, either from scratch or using Lex.
CO 4	Develop program for solving parser problems.
CO 5	Examine the various optimization techniques.

Course Code: 5KE09

Course Title: C-SKILLLAB–III

Oncompletionofthecourse,thestudentswillbeableto

CO 1	Explain the various tools, packages and modules required for Web Development.
CO 2	Discuss the workings of web server, cookies, routes, etc.
CO 3	Develop a mobile application using JS Framework.
CO 4	Design GUI using JS framework and/or Libraries.
CO 5	Create applications using Angular, React, Node and Express.

COURSE OUTCOMES SIX SEMESTERS BE (COMPUTER ENGINEERING)

Course Code: 6KE01

Course Title: SOFTWARE ENGINEERING

CO 1	Decide on a process model for a developing a software project
CO 2	Classify software applications and identify unique features of various domains
CO 3	Design test cases of a software system.
CO 4	Understand basics of Project management.
CO 5	Plan, schedule and execute a project considering the risk management.
CO 6	Apply quality attributes in software development life cycle.
CO 7	Understand quality control and to ensure good quality software.

Course Code: 6KE02

Course Title: ALGORITHMIC

CO 1	Carry out the analysis of various Algorithms for mainly Time complexity.
CO 2	Apply design principles and concepts to algorithm design.
CO 3	Understand different algorithmic design strategies
CO 4	Analyze the efficiency of algorithms using time complex
CO 5	Apply the standard sorting algorithms.
CO 6	
CO 7	

Course Code: 6KE03

Course Title: SIGNALS AND SYSTEMS

CO 1	Represent and Classify signal and systems.

CO 2	Obtain the response of a continuous, linear, time-invariant, causal system by using convolution.
CO 3	Utilize the Laplace transform method to solve continuous, linear, time-invariant systems and to obtain transfer functions.
CO 4	Analyse continuous, linear time-invariant systems using state variable formulation and solve the resulting state equations
CO 5	Convert a continuous-time signal to the discrete-time domain and reconstruct it using the sampling theorem.
CO 6	
CO 7	

Course Code: 6KE04

Course Title: NATURAL LANGUAGE PROCESSING

CO 1	Understand how to tag a given text with basic Language features
CO 2	Design an innovative application using NLP components
CO 3	Implement a rule-based system to tackle morphology/syntax of a language
CO 4	Design a tag set to be used for statistical processing for real-time applications
CO 5	Compare and contrast the use of different statistical approaches for different types of NLP applications.
CO 6	
CO 7	

Course Code: 6KE04

Course Title: PARALLEL COMPUTING

CO 1	Acquire knowledge on large scale parallel system
CO 2	Implement parallel programs for large-scale parallel systems
CO 3	Understand, appreciate and apply parallel and distributed algorithms in problem Solving.
CO 4	Design efficient parallel algorithms and applications
CO 5	Measure the performance of parallel and distributed programs.
CO 6	
CO 7	

Course Code: 6KE04

Course Title: SENSORS AND ACTUATORS

CO 1	Fabricate some of those sensors
CO 2	Simulate sensors and characterize before fabricating it
CO 3	Design application with sensors and actuators for real world
CO 4	
CO 5	

CO 6	
CO 7	

Course Code: 6KE04

Course Title: DIGITAL MEDIA PROCESSING

CO 1	Describe Multimedia components and representation
CO 2	Discuss color in Image and Video and explore fundamentals concepts in video
CO 3	Compare and contrast different compression algorithms.
CO 4	Apply Audio and Video compression techniques to media to improve efficiency.
CO 5	
CO 6	
CO 7	

Course Code: 6KEO5

Course Title: COMPUTATIONAL BIOLOGY

CO 1	To familiarize the students with most basic and useful algorithms for sequence analysis
CO 2	To aware the students with basic file formats
CO 3	To transform the basic molecular data for interpreting their patterns for various analysis
CO 4	To compare genomes of different species, gene finding, and gene regulation.
CO 5	
CO 6	
CO 7	

Course Code: 6KSO5

Course Title: CYBER LAWS & ETHICS

CO 1	Understand Cyber Space, Cyber Crime, Cyber Laws, Information Technology, Internet, Internet Services
CO 2	Know Legal Aspects of Regulation concerned with Cyber Space, Technology and Forms of Cyber Crimes

CO 3	Understand Computer Crimes and Cyber Crimes, Cyber Crime in Global and Indian Response.
CO 4	Understand Criminal Liability, Cyber Crime implications and challenges.
CO 5	Learn Precaution & Prevention of Cyber Crimes, Human Rights perspective of Cyber Crime.
CO 6	
CO 7	

Course Code: 6KE05

Course Title: INTELLECTUAL PROPERTY RIGHTS

CO 1	Demonstrate a breadth of knowledge in Intellectual property.
CO 2	Assess fundamental aspects of Intellectual Property Rights.
CO 3	Discuss Patents, Searching, filling and drafting of Patents
CO 4	Discuss the basic principles of geographical indication, industrial designs, and copyright.
CO 5	Explain of Trade Mark and Trade Secret.
CO 6	Investigate current trends in IPR and Government initiatives in fostering IPR.
CO 7	

Course Code: 6KE06

Course Title: SOFTWARE ENGINEERING – LAB

CO 1	Understand basic Software engineering methods and practices, and their appropriate application.
CO 2	Describe software process models such as the waterfall and evolutionary models.
CO 3	Discuss role of project management including planning, scheduling and, risk management
CO 4	Explain data models, object models, context models and behavioral models.
CO 5	Understand of different software architectural styles and Process frame work.
CO 6	
CO 7	

Course Code: 6KE07

Course Title: ALGORITHMICS – LAB

CO 1	Carry out the analysis of various Algorithms for mainly Time complexity.
CO 2	Apply design principles and concepts to algorithm design.
CO 3	Understand different algorithmic design strategies.
CO 4	Analyze the efficiency of algorithms using time complexity.
CO 5	Apply the standard sorting algorithms.
CO 6	
CO 7	

Course Code: 6KE09

Course Title: C Skill Lab IV– LAB (DevOps)

CO 1	Install and setup of Jenkins on your systems
CO 2	Create and run jobs in Jenkins
CO 3	Add and manage plugins. Use plugins in jobs
CO 4	Create and run pipelines in Jenkins
CO 5	Setup, configure, deploy jobs
CO 6	
CO 7	