S.NO	COURSE CODE	COURSE TITLE	COURSE OUTCOMES
		COMPUTER SCIENCE ENGINEERING	
		COURSE OUTCOMES FOR R18	
1	1821101	MATHEMATICS – I	1.Apply the essential tool of matrices in a comprehensive manner
			2.Describe the convergence of series
			3.Classify the functions of several variables which is useful in optimization techniques
			4.Define Beta and gamma functions and solve definite integrals.
			5.Determine the Fourier series of the functions.
2	1822104	ENGINEERING PHYSICS	1.Ability to apply the knowledge of Sciences to solve engineering problems by using Interference and Diffraction techniques.(L1)
			2.Able to understand the idea of Electronic materials & its applications in Engineering.(L2)
			3.Determine to the formulate and solve problems.(L3)
			4.Analyze to identify and formulate the working elements of different lasers and estimate Laser operation parameters. (L4)
3	1802103	Basic Electrical Engineering	1.Understand basic electric circuits and network solving techniques.
			2.Analyze RL, RC and RLC circuits for AC excitations
			3.Understand working principle, operation and construction of DC machines, 3-Ø induction motors and 1-Ø transformers
			4.Understand the components of low voltage electrical installations
			5.Solve the problems on EMF,Current ,Torque ,Regulation and Efficiency of DC machines ,3-Ø induction motor and 1-Ø transformer.
4	1803107	ENGINEERING GRAPHICS & DESIGN	1.Use CAD drafting and editing tools along with page templates ,title block & print settings
			2.Describe the geometric details of Engineering objects&Become familiar with Auto Cad 2D 3D drawings
			3.Understand Engineering drawing basic theory of projectionsrelated to points lines, planes and solids in different orientations and drafting them in cad software

			4.Analyze various sectional views related to Engineering Drawings andCreate isometric drawings with 3d tools along with basic theory& procedures in engineering drawing
5	1822108	ENGINEERING PHYSICS LAB	1.Evaluate of the application of interference, diffraction phenomena along with laser
			2.Support the scientific process in the conduct and reporting of experimental investigations.
			3.Formulate the measurement technology, usage of new instruments and real time applications in engineering studies
			4.Justify the theoretical ideas and concepts covered in lecture by doing hands on in the experiments.
			5.Develop the characteristics of various materials in a practical manner and gain knowledge about various optical technique methods
			6.Compose experimental data to examine the physical laws.
6	1802109	Basic Electrical Engineering Lab	1.Understand the Kirchhoff's laws by theoretically and practically.
			2.Determine the active and reactive power for RL, RC and RLC circuits.
			3.Determine equivalent circuit parameters on no-load and its performance on load of a 1- Ø transformer.
			4.Analyze the characteristics of DC shunt motor and 3-Ø Induction motor
			5.Identify various parts of DC and AC machines, fuse, MCB & Batteries.
7	1803110	WORKSHOP AND MANUFACTURING PRACTICES	1.Identify different manufacturing processes which are commonly employed in the industry
			2.Analyze the practical knowledge about fabricate components using different materials with their own hands
			3.Understand the knowledge of the dimensional accuracies and tolerances applicable for different manufacturing processes
			4.Experiment various basic House Wiring techniques such as connecting one lamp with one switch, connecting two lamps with one switch, connecting a fluorescent tube, Series wiring
8	1821201	MATHEMATICS – II	1.Solve the first order and higher order linear differential equations with constant coefficients.(L3)

			2.Apply Laplace Transforms in engineering problems.(L3)
			3.Evaluate multiple integrals.(L5)
			4.Understand Vector Calculus concepts and analyze their applications in engineering problems. (L4)
9	1823207	ENGINEERING CHEMISTRY	1.Analyse microscopic chemistry in terms of atomic and molecular orbitals and intermolecular forces. Properties of metals, water and thermodynamic considerations.
			2.. Rationalize periodic properties such as ionization potential, electro negativity and oxidation states .
			3.Distinguish the ranges of the electromagnetic spectrum used for exciting different molecular energy levels in various spectroscopic techniques.
			4.Remember the major chemical reactions that are used in the synthesis and streochemistry of molecules.
10	1824203	English	1.Describe the classification of words, sentences and their usages in sentences.
			2.Understand the difference between spoken and written English.
			3.Analyze the rules in language for changing the form of sentences.
			4.Illustrate the factors that influence grammar and vocabulary in speaking and writing
			5.Classify the parts of speech, tenses and sentence structures
11	**1805204**	PROGRAMMING FOR PROBLEM SOLVING	1.Understand the basics of computer system and C programming.
			2.Analyze a given problem and develop an algorithm to solve the problem.
			3.Apply proper branching and loop constructs to solve a complex problem
			4.Understand the concepts of arrays and strings to solve real time applications
			5.Apply modular approaches for solving complex problems
			6.Illustrate memory optimization for solving real world problems using structures and Unions
12	1823207	Chemistry Lab	1.Estimate rate constants of reactions from concentration of reactants/products as afunction of time.

			2.Measure molecular/system properties such as surface tension, viscosity,conductance of solutions, redox potentials, chloride content of water, etc.
			3.Synthesize a small drug molecule and analyse a salt sample.
13	1805208	PROGRAMMING FOR PROBLEM SOLVING LAB	1.Analyze given problem and develop an algorithm
			2.Implement Code and debug programs in C language using various constructs
			3.Choose proper C language constructs to solve complex problems.
			memory utilization
14	1824209	English Language and Communication Skills Lab	1.Describe objects, places and persons.
			2.Understand the listening process and answer the questions related to it.
			3.Analyze phonetics with examples
			4.Illustrate different modes of communication skills
			5.Classify LSRW skills
15	18994M1	SCIENCE	developmental activities towards the society.
			2.Summarize the interconnection of human dependence on this ecosystem.
			3.Solve environmental problems by gaining a higher level of knowledge and personal involvement.
			4.Outline the impact of developmental activities on environment and proper utilization of natural resources.
16	1804302	BASICS OF ELECTRONICS ENGINEEING	1.Understand the operation of various Diodes and their applications
			2. Explain the operation of transistor circuits under different configurations
			3.Analyze the performance of feedback amplifiers
			4.Illustrate the architecture of Microprocessor and Microcontroller
17	1805303	DATA STRUCTURES	1.Understand the variety of abstract data types and data structures.
			2.Analyze data structures such as linked list, Stacks and Queues.

			3.Apply and analyze tree traversal algorithms and graph traversal algorithms.
			4.Organize data in order using various sorting algorithms.
			5.Organize data in order using various sorting algorithms.
18	1805304	DISCRETE MATHEMATICS	1.Demonstrate knowledge on mathematical logic and Analyze truth tables, normal forms, implications, rules of inference
			2.Understand the basic principles of mathematical objects such as sets, relations
			3.Apply basic counting techniques to solve combinatorial problems.
			4.Able to solve recurrence relations.
			5.Demonstrate different traversal methods for trees and graphs
19	1805305	DIGITAL LOGIC DESIGN	1.Recall Binary Number systems
			2.Understand Boolean algebra and apply to the Boolean functions.
			3.Apply different optimization techniques to construct effective logic circuit.
			4.Model combinational and sequential circuits.
			5.Illustrating different registers, counters, Memory Concepts.
14	1805306	PYTHON PROGRAMMING	1.Demonstrate and acquire knowledge on usage of Data types, operators, input and output statements in python programming.
			2.Analyze the given problem and develop python program to solve the problem
			3.Able to use proper iterative statements in problem solving
			4.Identify the right sequence to solve the real-world problems
			5.Apply object-oriented features to solve real time applications
15	1825307	MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS	1.Acquire knowledge in principles and concepts of Managerial Economics and Accountancy
			2.Understand the Economic theories i.e., Demand, Production, Cost, Markets and Price.

			3.Describe different types of Markets and competition, forms of organization and Methods of Pricing.
			4.Examine the profitability of various Projects.
			5.Utilize tools and techniques to analyze and interpret the key parameters of financial performance.
16	1804308	BASIC ELECTRONICS ENGINEERING LAB	1.Verify the Characteristics of diodes, transistors.
			2. Demonstrate the applications of diodes.
			3.Examine the operation of oscillators.
17	1805309	DATA STRUCTURES LAB	1.Understand and implement stack ADT, queue ADT and linked list.
			2.Able to understand and implement tree traversal algorithms and graph traversal algorithms.
			3.Able to implement various sorting algorithms.
			4.Analyze and implement searching techniques.
18	1805310	PYTHON PROGRAMMING LAB	1.Understand and solve the basics of python programming.
			2.Learn and Implement iterative as well as recursive programs in python
			3.Able to represent heterogeneous data with right sequence in python
			4.Develop Programs using object-oriented features in python
19	1805402	Probability & Statistics	1.Understand the concepts of Probability. (L2)
			2.Interpret the properties of probability distributions and their applications. (L3)
			3.Analyze the problems of engineering and industry using the techniques of testing of hypothesis for large and small samples.(L4)
			4.Apply statistical quality control and draw appropriate inferences for engineering problems.(L3)
20	1805403	Computer Organization	1.Understand the organization of the control unit, Arithmetic unit, Logical unit, Memory unit and the I/O unit.
			2.Ability to analyze memory and I/O devices effectively and to explore the hardware requirements for cache memory ad virtual memory.
			3.Recall arithmetic operations of binary number system.

			4.Illustrate the concept of pipelining and multiprocessors.
			5.Ability to understand the concept of I/O organization.
21	1805404	Operating Systems	1.Understand the basic concepts of operating system and its services..
			2.Analyze the process scheduling algorithms and process synchronization mechanisms.
			3.Analyze the various memory management schemes.
			4.Understand the ways to deal with deadlocks and concepts related to file systems..
			5.Analyze the protection and security mechanisms.
22	1805405	Design and Analysis of Algorithms	1.Prove the correctness and analyze space and time complexity of an algorithm.
			2.Apply the algorithms to solve the problems
			3.Understand different algorithm design strategies and apply to real time problems.
			4.know the limitations of various design strategies.
23	1805406	Java Programming	1.Able to understand the use of OOPs concepts.
			2.Solve real world problems using OOP techniques.
			3.Understand the use of abstraction.
			4.Able to understand the use of Packages and Interface in java.
			5.Able to develop and understand exception handling, multithreaded applications with synchronization.
			6.Design GUI based applications and develops applets for web applications.
24	1825407	Formal Languages and Automata Theory	1.Demonstrate knowledge on Formal languages and automata
			2.Analyze the classification of languages, automata's and their computing power.
			3.Design grammars and automata (recognizers) for regular expressions and formal languages.
			4.solve to the computational problems using Push Down automata
			5.Apply Turing Machine to solve computational problems
26	1805408	Java Programming lab	1.Implement the basic principles of Object Oriented Programming which includes inheritance, polymorphism, encapsulation and abstraction.

			2.Implement classical problems using java programming.
			3.Able to write GUI programs using Applets, Swings in Java.
27	1805409	OPERATING SYSTEMS LAB	1.Implement process scheduling and process synchronization mechanisms.
			2.Implement page replacement algorithms and memory allocation techniques.
			3.Implement paging and segmentation schemes.
			4.Implement deadlock avoidance and detection schemes.