



**METHODIST**  
COLLEGE OF ENGINEERING & TECHNOLOGY  
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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING(AI&DS)

Faculty Teaching Methodologies Summary AY:2023-24

II SEM AY:2023-24						
S No	Course Code	Course	Course Instructor	CO No	Course Outcome	BT Level
1	ES202CS	Data Structures	Mr Senthil kumar Mr Murlidhar	ES202CS.1	Formulate simple algorithms for arithmetic and logical problem Translate the algorithms to programs	Understand
				ES202CS.2	Test and execute the programs and correct syntax and logical errors	Evaluate
				ES202CS.3	Implement conditional branching, iteration and recursion	Implement
				ES202CS.4	Decompose a problem into functions and synthesize a complete program using divide and conquer approach Use arrays, pointers, structures and file management to solve real world problems	Apply
				ES202CS.5	Construct recursive programs and use structures to formulate algorithms and programs	Implement
2	ES252CS	Data Structures Lab	Mr Senthil kumar Mr Murlidhar	ES252CS.1	Understand and implement the abstract data type and reusability of a particular data structure.	Implement
				ES252CS.2	Implement linear data structures such as stacks, queues using array and linked list.	Implement
				ES252CS.3	Understand and implements non-linear data structures such as trees, graphs.	Analyze
				ES252CS.4	Implement various kinds of searching, sorting and traversal techniques and know when to choose which technique.	Implement
				ES252CS.5	Understand and implementing hashing techniques.	Understand

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Assessment Committee

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S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	BT Level
1	ES101CS	Programming for Problem Solving	Mr Mujtaba Ms Radhika	ES101CS.1	Understand algorithms and learn fundamental program methodologies of C programming.	Understanding
				ES101CS.2	Understand control statements and derived data types with mathematical and engineering problems.	Applying
				ES101CS.3	Interpret control statements and derived data types with mathematical and engineering problems.	Evaluating
				ES101CS.4	Enhance skills in modular programming for solving a variety of computational challenges, including searching, sorting, and file system operations.	Analyzing
				ES101CS.5	Recognize pre-processor directives and user defined usage.	Creating
2	ES151CS	Programming for Problem Solving Lab	Mr Mujtaba Ms Radhika	ES151CS.1	Choose appropriate data type for implementing programs in C	Create
				ES151CS.2	Design modular programs involving I/O operations, decision	Understand
				ES151CS.3	Implement modular programs involving I/O operations, decision	Create
				ES151CS.4	Apply derived data types and implement programs to store a	Understand
				ES151CS.5	Develop confidence for self education and ability towards	Applying

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**III SEM AY:2023-24**

S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	BT Level
1	IBS305HS	Probability & Statistics	Ms.Hima Bindu	IBS305HS.1	To understand concepts of probability and random variables	Applying Remembering
				IBS305HS.2	Apply various probability distributions to solve practical problems, to estimate unknown parameters of populations	Applying
				IBS305HS.3	Find Mean, variance, moment generating function and statistical parameters of continuous probability distributions	Applying
				IBS305HS.4	To perform a regression analysis and to compute and interpret the coefficient of correlation	Remembering Analyzing
				IBS305HS.5	Evaluate t-distribution, F-distribution and chisquare distributions. Fitting of straight line, parabola and exponential curves	Applying Evaluating
2	IES301 EC	Switching Theory and Logic Design	Mrs.B.Sowjanya Mrs.J.Sowmya	IES301 EC.1	Illustrate the basic principles of Binary Systems, Boolean algebra and Logic Gates.	Understanding
				IES301 EC.2	Design & Measure various physical parameters Memory and Programmable Logic & understanding of memories	Applying
				IES301 EC.3	Apply the principles of Analysis Procedure , Design Procedure , for Binary Adder Subtractor ,Decimal Subs tractor Binary Multiplier	Remembering
				IES301EC.4	Design & Use various types of Synchronous Sequential Logic & Sequential Circuits. Latches. Flip-flops etc.	Analyzing
				IES301 EC.5	Identify and understand Identify and classify types of Combinational Logic Design or Sequential Logic Design.	Understanding



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3	IPC302AD	Database Management Systems	Mr T Vijay kumar Dr.Syed Azahad	IPC302AD.1	Explain Fundamental DBMS Concepts: Students will explain the foundational concepts and principles of database management systems	Understanding
				IPC302AD.2	Analyze Relational Database Design: Students will analyze and evaluate different approaches to relational database design.	Analyzing
				IPC302AD.3	Interpret SQL Querying: Students will interpret and explain complex SQL queries and their output.	Analyzing Understanding
				IPC302AD.4	Discuss Data Integrity and Security: Students will discuss and compare various techniques for ensuring data integrity and implementing security measures	Evaluating
				IPC302AD.5	Evaluate Query Optimization Techniques: Students will evaluate and compare query optimization techniques used to enhance database performance.	Evaluating
4	IPC301AD	Discrete Mathematics	Ms J Sowmya Mr. Venkatram Vennam	IPC301AD.1	Apply mathematical logic to solve problems	Applyinging
				IPC301AD.2	Illustrate by examples the basic terminology of functions, relations, and sets and demonstrate knowledge of their associated operations.	Understanding
				IPC301AD.3	Identify structures of algebraic nature and apply basic counting techniques to solve combinatorial problems.	Applyinging/An alyzing
				IPC301AD.4	Formulate problems and solve recurrence relations	Creating
				IPC301AD.5	Apply Graph Theory in solving computer science problems	Applyinging
5	IPC303AD	Computer Organization and Microprocesso r	Mr. Venkatram Vennam Dr Diana Moses	IPC303AD.1	Explain the organization and architecture of a basic computer (CPU) with different instruction formats and addressing modes	Understanding
				IPC303AD.2	Describe the internal architecture and register organization of 8086 and the addressing modes in 8086	Understanding
				IPC303AD.3	Design and develop Assembly level programs using 8086 microprocessor instruction set	Applyinging
				IPC303AD.4	Analyze various I/O Interfacing mechanisms and memory organization techniques	Analyzing
				IPC303AD.5	Applies the knowledge of program execution and its internal hardware operations during design and development of Assemble language programs.	Applyinging



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6	1MC302HS	Essence of Indian Traditional Knowledge	Mrs. Prashanthi Mr Satyapal Reddy	1MC302HS.1	To outline the history of civilization in Indian context since pre-Vedic times	Understanding
				1MC302HS.2	To outline the various schools of Indian Philosophy	Understanding
				1MC302HS.3	To demonstrate the diversity in Indian Thought ,Languages , regional culture , dress, living style etc.	Understanding
				1MC302HS.4	To Identify the various religious and social reform movements which took place in the past few centuries	Applying
				1MC302HS.5	To classify the wealth of Indian Fine Arts and the diversity associated with it over the length and breadth of the country	Understanding
7	IPC351AD	Database Management Systems Lab	Mr T Vijay Kumar Dr. Syed Azahad	IPC351AD.1	Understand Database Concepts: Students will demonstrate an understanding of fundamental concepts in databases, including data models, schemas, and normalization.	Remembering
				IPC351AD.2	Design and Implement Databases: Students will be able to design and implement relational databases using appropriate schema design techniques.	Applying
				IPC351AD.3	SQL Querying: Students will write complex SQL queries to retrieve and manipulate data from databases.	Applying
				IPC351AD.4	Data Integrity and Security: Students will apply techniques to ensure data integrity and implement security mechanisms to protect databases from unauthorized access.	Applying Analyzing
				IPC351AD.5	Performance Tuning: Students will identify and optimize query and database performance issues using indexing, query optimization, and tuning strategies. Database Application Development: Students will develop database-driven applications using programming languages and tools like JDBC or ORM frameworks.	Analyzing Evaluating
8	IPC353AD	Computer Organization and Microprocessor Lab	Mr. Venkatram Vennam Dr Diana Moses	IPC353AD.1	Interpret the principles of Assembly Language Programming, instruction set in developing microprocessor based applications	Applying
				IPC353AD.2	Design and implement programs on 8086 microprocessor	Applying
				IPC353AD.3	Understand working of instruction set and addressing modes of 8086	Applying
				IPC353AD.4	Explore and implement the interfacing of various peripheral devices with 8086	Applying
				IPC353AD.5	Analyze the function of traffic light controller.	Analyze





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9	IPC352AD	Python Programming Lab	Mr. Shaik Rasool Ms Keerthi	IPC352AD.1	Demonstrate solutions to computational problems using python programs.	Understanding
				IPC352AD.2	Solve complex problems using python functions and control structures.	Applying
				IPC352AD.3	Use Python lists, tuples and dictionaries for representing compound data.	Evaluating
				IPC352AD.4	Develop object-oriented programs with python classes	Applying
				IPC352AD.5	Develop Python programs for GUI applications	Creating
10	IPW354AD	Skill Development Course – I (IOT)	Mr M Krishnamurthy Dr. G Saritha	IPW354AD.1	Understand IoT Fundamentals: Students will comprehend the fundamental concepts and components of the Internet of Things (IoT)	Understanding
				IPW354AD.2	Sensor Integration: Students will be able to integrate various sensors into IoT systems to collect real-world data.	Applying
				IPW354AD.3	Data Processing and Analysis: Students will process and analyze data collected from IoT devices using appropriate techniques and tools.	Analyzing
				IPW354AD.4	Connectivity Protocols: Students will understand and apply different communication protocols for connecting IoT devices to networks.	Applying
				IPW354AD.5	IoT Application Development: Students will develop IoT applications using programming languages and platforms.	Creating

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1	IPC404AD	Operating Systems	Dr. Syed Azahad / Dr Sharada Varalakshmi	IPC404AD.1	Explains the concepts of OS along with an Understand of the process, memory and file managements and also defines the disk structure and I/O sub system	Understand
				IPC404AD.2	Applies the knowledge of process, memory and file managements and implements the respective algorithms to find the efficacy and performance	Applying
				IPC404AD.3	Applies the OS system calls, process synchronization ,page replacement, directory and disk scheduling algorithms	Applying
				IPC404AD.4	Analyzes various scheduling algorithms, inter process communication methods such as Readers -Writers problems	Analyzing
				IPC404AD.5	Evaluates the performance of the Disk structure	Evaluating
2	IPC405AD	Statistical Analytics and Computing	Ms Harika / Dr T Praveen Kumar	IPC405AD.1	Recalling basic concepts and syntax of Python, as well as the fundamentals of pandas data structures and file formats.	Remembering
				IPC405AD.2	Understand the NumPy ndarray, essential pandas functionality, hierarchical indexing, and time series data types and tools.	Understand
				IPC405AD.3	Apply the knowledge of Python, NumPy, pandas, and data cleaning and preparation techniques to solve real-world problems, as well as create and manipulate arrays, use universal functions, read and write data in various formats, group and aggregate data, and perform various time series operations.	Applying
				IPC405AD.4	Analyze and evaluate data sets, functions, and files using NumPy, pandas, and other Python tools, as well as use data wrangling techniques to combine and reshape datasets, handle missing data, and perform string manipulation.	Analyzing
				IPC405AD.5	Evaluate the effectiveness of different data aggregation and group operation strategies, and recommend appropriate methods based on specific use cases and data sets.	Evaluating



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3	IPC406AD	Foundations of Artificial Intelligence	Dr P Lavanya Dr U Moulali	IPC406AD.1	Understand the core principles and concepts of AI and exhibit proficiency in problem solving using search strategies, ML techniques to address real world	Understand
				IPC406AD.2	Examine the issues involved in knowledge bases, reasoning systems ,planning and Automatic Speech Recognition.	Analyze
				IPC406AD.3	Design and evaluate intelligent agent and expert models for perception and prediction from intelligent environment.	Apply
				IPC406AD.4	Understand and apply fuzzy logic, utility theory and various algorithms of Machine learningenabling them to make informed decisions and manage uncertainties and consider utility in AI applications	Understand
				IPC406AD.5	Understand and Apply Natural Language Processing and Machine Learning Techniques to develop intelligent systems.	Understand
4	IPC407AD	Software Engineering	Dr G Saritha/ Mr Krishnamurthy	IPC407AD.1	Outline working knowledge of alternative approaches and techniques for each phase of SDLC.	Understand
				IPC407AD.2	Judge an appropriate process model(s) for software project attributes and analyze requirements for project development.	Evaluate
				IPC407AD.3	Discover skills necessary as an independent or as part of a team for architecting a complete software project by identifying solutions for recurring problems exerting	Analyze
				IPC407AD.4	Apply appropriate metrics conceding product quality with testing techniques by Understand the practical challenges associated with the development of a	Apply
				IPC407AD.5	Apply the software engineering principles in real time project development.	Apply
5	IHS403HS	Human Values and Professional Ethics	Mrs Jayashree/ Mrs Hephzabah	IHS403HS.1	Understand the significance of value inputs in a classroom and start applying them in their life and profession.	Understand
				IHS403HS.2	Assess their own ethical values and the social context of problems.	Understand
				IHS403HS.3	Distinguish between values and skills, happiness and accumulation of physical facilities, the Self and the Body, Intention and Competence of an individual, etc.	Analyzing
				IHS403HS.4	Understand the role of a human being in ensuring harmony in society and nature.	Understand
				IHS403HS.5	Distinguish between ethical and unethical practices, and start working out the strategy to actualize a harmonious environment wherever they work.	Analyzing





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6	IPC455AD	OperatingSyst emsLab	Dr. Syed Azahad / Dr Sharada Varalakshmi	IPC455AD.1	Evaluate the performance of different types of CPU scheduling algorithms.	Evaluating
				IPC455AD.2	Implement producer-consumer problem, reader-writers problem, Dining philosopher's problem.	Applying
				IPC455AD.3	Simulate Banker's algorithm for deadlock avoidance.	Creating
				IPC455AD.4	Implement paging replacement and disk scheduling techniques.	Applying
				IPC455AD.5	Ability to implement inter process communication between two processes.	Applying
7	IPC456AD	Java Programming Lab	Ms K Keerthi/ Ms Sana mateen	IPC456AD.1	Demonstrate the use of java syntax and semantics, classes, objects and their roles and benefit.	Understand
				IPC456AD.2	Develop Java programs that effectively use arrays, packages, inheritance, String Tokenizer and interface to promote code organization, reusability and flexibility.	Apply
				IPC456AD.3	Develop java programs that effectively handle exceptions and ensure error-free code.	Apply
				IPC456AD.4	Analyze java programs on Method Overloading and Method Overriding.	Analyze
				IPC456AD.5	Implement java programs for multithreading and java collection framework.	Apply
8	IPC457AD	Statistical Analytics and Computing using PythonLab	Ms Harika / Dr T Praveen Kumar	IPC457AD.1	Install Numpy and Pandas	Applying
				IPC457AD.2	Work with 1D and 2D array in Numpy and process data in arrays	Understand, Analyzing
				IPC457AD.3	Explore multi-dimensional arrays in Numpy and perform conversions	Analyzing, Applying
				IPC457AD.4	Perform statistical analysis using Numpy by calculating measures of central tendency, deviation, distances and correlation	Analyzing, Applying
				IPC457AD.5	Perform statistical analysis using Pandas	Analyzing, Applying



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9	IPW458AD	Skill Development Course-II	Ms Sanamateen/ Ms A Sowjanya	IPW458AD.1	Explain network technologies , networking model and how devices access local and remote networks.	Understand
				IPW458AD.2	Describe router hardware and Explain how switching operates in a small to medium-sized business network	Understand
				IPW458AD.3	Design an IPv4 and IPv6 addressing scheme to provide network connectivity for a small to medium-sized business network	Create
				IPW458AD.4	Configure initial settings on a network device using Cisco command-line interface (CLI) and Implement various types of LANs and trunking in a switched network	Create
				IPW458AD.5	Develop critical thinking and problem solving skills using Cisco Packet Tracer.	Create

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1	IPC508AD	Design and Analysis of Algorithms	Mrs. Unnati Khanapurkar	IPC508AD .1	Understand to compute the complexities in different algorithmic approaches like brute force, divide and conquer, greedy method, dynamic programming , describe the classes P, NP, NP-Complete problems and graph traversals	Understand
				IPC508AD .2	Solve recurrence relation using different methods and compare the different methods to generate a minimum cost spanning tree using greedy approach and implement Dijkstra's algorithm	Applying
				IPC508AD .3	Solve problems using algorithm design methods such as backtracking and branch and bound, apply the concept of graph colouring to various practical problems	Applying
				IPC508AD .4	Analyze the best approach to solve various problems like Knapsack problem, Travelling salesman problem, parallel algorithms and Differentiate deterministic and non deterministic algorithms	Analyze
				IPC508AD .5	Determine the best sorting and searching algorithm, optimal Hamiltonian circuit and whether a problem is satisfiable or not and perform asymptotic analysis	Evaluate
2	IPC509AD	Data Science	Dr. Shaik Khaleel Ahamed/ Mr. Deva Rajashekar	IPC509AD.1	Recognize the different levels of Data Science concepts for visualization of data.	Analyze
				IPC509AD.2	Demonstrate the data visualization and statistical techniques, for describing data structure property.	Understand
				IPC509AD.3	Analyze the basics of probability and statistics models for data exploration	Analyze
				IPC509AD.4	Make use of Hypothesis testing for statistical analytics for destroying target based on the mission requirements.	Applying
				IPC509AD.5	Demonstrate numerous open source data science tools to solve real-world problems through industrial case studies	Applying





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3	IES501AD	Digital Image Processing	Dr.G.Saritha Dr. Diana Moses	IES501AD.1	Explain the fundamentals of digital image and its processing	
				IES501AD.2	Understand the enhancement, segmentation, restoration, compression processes on an image	
				IES501AD.3	Explore the fundamental relation between pixels and apply image enhancement, filtering techniques, morphological operations for image processing	
				IES501AD.4	Explore the utility of 2-D transforms and analyze the different linear image restoration techniques	
				IES501AD.5	Evaluate point processing techniques, histogram manipulation, compression techniques and mathematical model for image restoration	
4	IPE504AD	PE-Principles of Programning	Mr.K.Muralidhar	IPE504AD.1	Expresses syntax and semantics in formal notation	Understand
				IPE504AD.2	Apply suitable programming paradigm for the application scenario	Applying
				IPE504AD.3	Compare the features of various programming languages.	Analyze
				IPE504AD.4	Describes the programming paradigms of modern programming languages	Understand
				IPE504AD.5	Describes the concepts of ADT and OOP.	Understand
5	IPE502AD	PE-Data Mining	Mrs.A.Sowjanya	IPE502AD.1	Preprocesses data and apply mining techniques on it.	Applying
				IPE502AD.2	Generates association rules using different algorithms	Creating
				IPE502AD.3	Applies classification algorithms and evaluates its efficiency	Applying
				IPE502AD.4	Understands various clustering algorithms	Understand
				IPE502AD.5	Explains web and text mining methods	Understand
6	OE501CE	O.E- I (Disaster Mitigation)	Ms.Madhuri	OE501CE.1	Demonstrate the concepts of disaster management	Understand
				OE501CE.2	Identify different types of disasters	Applying
				OE501CE.3	Explain the disaster management cycle	Analyzing
				OE501CE.4	Illustrate the role of NDMA in disaster management	Understand
				OE501CE.5	Explain the development of disaster mitigation plan	Evaluating



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7	1MC503HS	Indian Constitution	Mr. Satyapal Reddy	1MC503HS.1	Read, Remember, understand the background and making of Indian constitution and Its importance.	Understanding
				1MC503HS.2	Remember and understand the working of the Central, state and provincial levels of administration.	Understanding
				1MC503HS.3	Remember and understand the fundamental duties, responsibilities and rights as an ideal citizen of India.	Understanding
				1MC503HS.4	Understand and interpret the functioning and distribution of resources between Union and state.	Applying
				1MC503HS.5	Understand the existing hierarchy of the social structure, election process and Grievance redressal in a democracy.	Understanding
8	1PC559AD	Data Science Lab	Dr. Shaik Khaleel Ahamed Mr. Deva Rajashekar	1PC559AD.1	Understand the concept of Setup R Programming Environment.	Understand
				1PC559AD.2	Develop programming logic using R-data types, R-Data Structures and R – Packages.	Create
				1PC559AD.3	Analyze data sets using R – programming capabilities.	Analyze
				1PC559AD.4	Apply various classification and regression models.	Applying
				1PC559AD.5	Apply various clustering techniques on different data sets	Applying
9	1ES551CS	Digital Image Processing Lab	Dr.G.Saritha Dr. Diana Moses	1ES551CS.1	Understand how the images are read as grayscale and RGB	Understand
				1ES551CS.2	Apply the different techniques to convert the images in different forms	Apply
				1ES551CS.3	Understand the processing and implement different images filtering techniques	Understand
				1ES551CS.4	Implement edge detection	Apply
				1ES551CS.5	Compare the different DFT,DCT and DWT techniques	Apply



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10	1HS553HS	Soft Skills Lab - I	Dr. Sunil Solomon	1HS553HS.1	Listen to a variety of speakers and texts and will be able to comprehend and perform the required tasks.	Understand
				1HS553HS.2	Interact in a group professionally and communicate confidently in terms of both the spoken and written communication.	Applying
				1HS553HS.3	Develop the skills and strategies of reading and writing.	Applying
				1HS553HS.4	Face any Interview confidently by managing time, making decisions by speaking appropriately according to the context.	Applying
				1HS553HS.5	Demonstrate right attitude and right skills to cope with team and communicate professionally.	Applying
11	1PW560AD	Skill Development Course - III	Mrs. A.Sowjanya Dr T Praveen Kumar	1PW560AD.1	Understand the basics of Android development, including the Android Studio IDE, the Android SDK, and the Android Manifest.xml file.	Understand
				1PW560AD.2	Create an app with multiple activities that can communicate with each other using intents	Create
				1PW560AD.3	Create a variety of user interface elements, such as buttons, text fields, and checkboxes	Create
				1PW560AD.4	Use layouts to arrange their user interface elements in a logical and efficient way.	Apply
				1PW560AD.5	Understand how to store data in Android apps, using both local and remote storage options	Understand

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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING(AI&DS)**

**Faculty Teaching Methodologies Summary AY:2023-24**

VI SEM AY:2023-24						
S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	BT Level
1	IPC610AD	Computer Networks	Ms Radhika/ Mr Venkatram	IPC610AD.1	Understand the concept of Computer Networks, OSI & TCP/IP reference models and discuss the functionalities of each layer in these models.	Understand
				IPC610AD.2	Apply bandwidth utilization techniques , Framming techniques ,flow and error control protocols and various addressing schemes for an efficient transmission of data through the layers.	Apply
				IPC610AD.3	Analyze various Layered architectures , transmission media , data link control protocols , MAC protocols ,address mapping protocols ,routing protocols and various application layer protocols	Analyze
				IPC610AD.4	Evaluate various routing algorithms such as unicast and multicast routing algorithms.	Evaluate
				IPC610AD.5	Discuss various classes of IP addressing and NAT with examples	Create
2	IPC611AD	Machine Learning	Dr Deva Rajashekar/ Dr U Moulali	IPC611AD.1	Extract features that can be used for a particular machine learning approach in various applications.	Analyze
				IPC611AD.2	Compare and contrast pros and cons of various machine learning techniques and to get an insight when to apply particular machine learning approach.	Understand
				IPC611AD.3	Understand different machine learning types along with algorithms.	Analyze
				IPC611AD.4	Understand how to apply machine learning in various applications.	Understand
				IPC611AD.5	Apply ensemble techniques for improvement of classifiers	Analyze
3	IPC612AD	Automata Languages and Compiler Design	Mr Shrikarshobit/ Ms unnati K	IPC612AD.1	Understand the basics of automata, regular expression, push down automata, turing machine, compiler, parser ,code optimization techniques	Understand
				IPC612AD.2	Construct equivalently powerful notations for a language, including DFAs, NFAs, and regular expressions, between PDAs and CFGs	Apply
				IPC612AD.3	Design Push down automata, Turing machine	Create
				IPC612AD.4	Construct parsing tables for different types of parsing techniques and syntax directed translations	Apply
				IPC612AD.5	Compare different memory management techniques in runtime environment and understand process of code generation	Understand



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Faculty Teaching Methodologies Summary AY:2023-24

4	1PE608 AD	Professional Elective – II(SPM)	Dr Shaik khaleel ahamed/ Ms Radhika	1PE608 AD.1	Understand the basic project management concepts, framework and the process models	Understand
				1PE608AD.2	Apply appropriate software process model and software effort estimation techniques	Apply
				1PE608 AD.3	Estimate risks involved in various project activities, staff and issues related to people management	Evaluate
				1PE608 AD.4	Analyze checkpoints, project reporting structure, project progress and tracking mechanisms using project management principles.	Analyze
				1PE608 AD.5	Apply project management concepts through working in a group as team leader	Apply
5	6OE602ME	OE– II(3D Printing)	Ms I Sowjanya	6OE602ME.1	Describe the fundamentals of 3d printing, classify and explain advantages and disadvantages of 3D Printing technologies	Understand
				6OE602ME.2	Identify the appropriate CAD file formats and software utilized in 3D printing technology.	Understand
				6OE602ME.3	Describe the operating principles, capabilities and limitations of liquid, solid & powder based 3D Printing Technologies.	Understand
				6OE602ME.4	Compare different 3D printing technologies based on their process capabilities and applications	Understand
				6OE602ME.5	Apply the capabilities and knowledge of 3D printing in different industrial sectors.	Apply
6	1HS652HS	Effective Technical Communication	Dr Sunil Solomon/ Ms Jayashree	1HS652HS.1	Listen to a variety of speakers and texts and will be able to comprehend and perform the required tasks.	Understand
				1HS652HS.2	Interact in a group professionally and communicate confidently in terms of both the spoken and written communication.	Applying
				1HS652HS.3	Develop the skills and strategies of reading and writing.	Applying
				1HS652HS.4	Face any Interview confidently by managing time, making decisions by speaking appropriately according to the context.	Applying
				1HS652HS.5	Demonstrate right attitude and right skills to cope with team and communicate professionally.	Applying
7	IPC661AD	Machine Learning Lab	Mr D Raja sekhar/ Dr U Moulali	IPC661AD.1	Apply machine learning algorithms: data set preparation, model selection, model building etc.	Applying
				IPC661AD.2	Evaluate various Machine Learning approaches.	Evaluate
				IPC661AD.3	Use scikit-learn, Keras and Tensorflow to apply ML techniques.	Applying
				IPC661AD.4	Design and develop solutions to real world problems using ML techniques.	Analyze
				IPC661AD.5	Apply unsupervised learning and interpret the results	Understand



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8	IPC662AD	Data Visualization Lab	Dr Diana Moses/ Ms P Nandini	IPC662AD.1	Understand the basics of data visualization and the best practices for creating effective visualizations.	Understand
				IPC662AD.2	Connect to data sources and create basic visualizations in Tableau Desktop.	Applying
				IPC662AD.3	Create more advanced visualizations and dashboards using table calculations, filters, and actions.	Applying
				IPC662AD.4	Present data stories using Tableau by creating interactive visualizations and dashboards.	Applying
				IPC662AD.5	Analyze the impact of different Visualization components and their use in various business sectors.	Analysing
9	IPW663AD	MiniProject	Dr U Moulali/ Dr Shaik Khaleel Ahmed	IPW663AD.1	Interpret a variety of approaches and perspectives of system development.	Understand
				IPW663AD.2	Identify the requirements which are relevant to the design of a system.	Applying
				IPW663AD.3	Model software design with a set of objects and their relationships using structural modeling.	Applying
				IPW663AD.4	Take part in using advanced & behavioral modeling to develop a case study.	Analysing
				IPW663AD.5	Develop components through architectural modeling.	Creating

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Faculty Teaching Methodologies Summary AY:2023-24

VII SEM AY:2023-24

S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	BT Level
1	PC701AD	Deep Learning	Mrs. K.Radhika	PC701AD.1	Demonstrate the fundamentals of neural networks and their training.	Understand
				PC701AD.2	Illustrate the optimization methods for deep neural networks.	Understand
				PC701AD.3	Differentiate between various architectures of CNNs, RNN	Analyzing
				PC701AD.4	Apply the relevant architecture to applications of Computer Vision and NLP	Applying
				PC701AD.5	Illustrate architecture of GANs and their applications	Understand
2	PC702AD	Mining of Massive DataSets	Mrs Harika	PC702AD.1	Understand various massive datasets and apply pre-processing Techniques and evaluate with various statistical methods for any given raw data.	Remember/under stand
				PC702AD.2	Extract interesting patterns from large amounts of data.	Applying
				PC702AD.3	Choose suitable data mining algorithm for clustering, on data stream and analyse page rank algorithms.	analyse
				PC702AD.4	Discover the role played by data mining in social network	Remember/under stand
				PC702AD.5	Discover the role played by data mining in advertising. 6.Case studies on mining of social network and advertising on the web	Applying
3	PC703AD	Software Project Management	Mr.M.Krishnamurthy	PC703AD.1	Explain the basic project management concepts, framework and the process models	Understanding
				PC703AD.2	Apply appropriate software process model and software effort estimation techniques	Applyinging
				PC703AD.3	Estimate risks involved in various project activities, staff and issues related to people management	Evaluating
				PC703AD.4	Analyze checkpoints, project reporting structure, project progress and tracking mechanisms using project management principles.	Analyzing
				PC703AD.5	Apply project management concepts through working in a group as team leader	Applyinging



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**Faculty Teaching Methodologies Summary AY:2023-24**

4	PE742AD	PE-IV(NLP)	Dr. Syed Azhaad	PE742AD.1	Apply normalization techniques on a document and evaluate a language model.	Applying
				PE742AD.2	Implement parts of speech tagging and classification techniques on the words	Applying
				PE742AD.3	Establish relationships among words of a sentence using word net and also build the question answering system.	Analyze and Evaluate
				PE742AD.4	Understand the WSD and understand to use WORDNET.	Analyze
				PE742AD.5	Analyse Chabot's, dialogue systems, and automatic speech recognition systems	Analyze
5	PC751AD	Deep Learning Lab	Mrs. K.Radhika	PC751AD.1	Develop ANN without using Machine Learning/Deep learning library	Creating
				PC751AD.2	Understand the Training ANN model with back propagation	Understanding
				PC751AD.3	Develop model for sequence learning using RNN	Creating
				PC751AD.4	Develop image classification model using ANN and CNN.	Creating
				PC751AD.5	Generate a new image with auto-encoder and GAN.	Applying
6	PC752AD	Mining of Massive DataSets Lab	Mrs Harika	PC752AD.1	Able to understand and implement different methods in Mining the Data.	Remember understand
				PC752AD.2	able to apply statistics and other mathematical functions for mining the data	Applying
				PC752AD.3	Able to analyse various association rules and implement the algorithms	analyse
				PC752AD.4	Able to understand the Stream Data Model	Remember
				PC752AD.5	Able to implement various clustering algorithms	Applying
7	PW761AD	Project Work(Phase-I)	Dr.P.Lavanya	PW761AD.1	Demonstrate the ability to synthesize and apply the knowledge and skills acquired in the academic program to the real-world problems.	Applying
				PW761AD.2	Evaluate different solutions based on economic and technical feasibility	Evaluating
				PW761AD.3	Effectively plan a project and confidently perform all aspects of project management	Analyzing
				PW761AD.4	Demonstrate effective written and oral communication skill	Understanding
				PW761AD.5	Communicate effectively by comprehending, documenting, making effective presentation and exchanging clear instructions	Evaluating



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8	SI671AD	Summer Internship	Dr Syed Azahad	SI671AD.1	Design/ develop a small and simple product in hardware or software	Creating
				SI671AD.2	Build the task or realize a pre-specified target, with limited scope, rather taking up a COMPLEX TASK AND LEAVE IT	Analyzing
				SI671AD.3	Determine the challenges and future potential for his / her intenship organization in	Analyzing
				SI671AD.4	Apply various soft skills such as time management, positive attitude and	Applying
				SI671AD.5	analyze the functioning of internship organization and recommend changes for	Analyzing

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**VIII SEM AY:2023-24**

S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	BT Level
1	OE805CE	Essentials of Road Safety Engineering	Ms Madhuri	OE805CE.1	Explain the fundamentals of road safety analysis	Analysing
				OE805CE.2	analyze accident data	Analysing
				OE805CE.3	illustrate the concepts of road safety audit	Understand
				OE805CE.4	Demonstrate the applications of road signs and markings	Understand
				OE805CE.5	Illustrate the traffic systems from road safety point of view	Understand
2	PE851AD	PE-V(Data Engineering)	Mrs J Sowmya	PE851AD.1	The objective of this course is to introduce data engineering and role of data engineers.	Understand
				PE851AD.2	Familiarize students with the basic and advanced techniques of data engineering, data modeling and data acquisition.	Understand
				PE851AD.3	To learn key techniques of the data modeling framework and Big data tools.	Applying
				PE851AD.4	To learn categories of API and data science projects using API.	Applying
				PE851AD.5	to design, develop, and optimize ETL pipelines to process and integrate data from multiple sources into centralized systems.	Analysing
3	PW861AD	Project Work-II	Dr. P. Lavanya	PW861AD.1	Demonstrate the ability to synthesize and apply the knowledge and skills acquired in the academic program to the real-world problems.	Applying
				PW861AD.2	Evaluate different solutions based on economic and technical feasibility	Evaluating
				PW861AD.3	Effectively plan a project and confidently perform all aspects of project management	Analyzing
				PW861AD.4	Demonstrate effective written and oral communication skill	Understand
				PW861AD.5	Communicate effectively by comprehending, documenting, making effective presentation and exchanging clear instructions	Evaluating

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S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	Blooms Taxonomy
1	ES101CS	Programming for Problem Solving	Mr T Praveen Dr G Saritha Mr D Rajashekhar	ES101CS.1	Formulate simple algorithms for arithmetic and logical problem; Translate the algorithms to programs	Understanding
				ES101CS.2	Test and execute the programs and correct syntax and logical errors	Applying
				ES101CS.3	Implement conditional branching, iteration and recursion	Evaluating
				ES101CS.4	Decompose a problem into functions and synthesize a complete program using divide and conquer approach	Analyzing
				ES101CS.5	Construct recursive programs and use structures to formulate algorithms and programs	Creating
2	ES151CS	Programming for Problem Solving	Mr T Praveen Dr G Saritha Mr D Rajashekhar	ES151CS.1	Choose appropriate data type for implementing programs in C language	Create
				ES151CS.2	Design and implement modular programs involving input output operations, decision making and looping constructs	Understand
				ES151CS.3	Apply the concept of arrays, pointers for implementing programs and string handling	Create
				ES151CS.4	Design and implement programs to store data in structures and files	Understand
				ES151CS.5	Develop confidence for self education and ability for life long learning need for computer languages	Apply

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II SEM AY:2023-24

S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	Blooms Taxonomy
1	ES202CS	Data Structures	Mr Kareem Basha Dr G Saritha	ES202CS.1	Analyze the complexities of recursive and Non recursive algorithms.	Analyze
				ES202CS.2	Apply the concepts of dynamic memory allocation for reducing the time and space complexity of algorithms.	Applying
				ES202CS.3	Apply ADT concepts such as arrays, stacks and queues for solving infix to post fix, postfix evaluation.	Evaluate
				ES202CS.4	Design and implement the Non linear data structures trees to optimize the solution	Creating
				ES202CS.5	Implement linear, binary, hashing searching techniques and sorting techniques	Applying
2	ES252CS	Data Structures Lab	Mr Kareem Basha Dr G Saritha	ES252CS.1	Understand and Implement the abstract data type and reusability of a particular data structure.	Remembering
				ES252CS.2	Implement linear data structures such as stacks, queues using array and linked list.	Understand
				ES252CS.3	Understand and implements non-linear data structures such as trees, graphs.	Evaluating
				ES252CS.4	Implement various kinds of searching, sorting and traversal techniques and know when to choose which technique.	Creating
				ES252CS.5	Understand and implementing hashing techniques.	Analyzing

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#### III SEM AY:2023-24

S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	Blooms Taxonomy
1	3BS305HS	Probability & Statistics	Mr. T.Joseph Ms.Hima Bindu	3BS305HS.1	To understand concepts of probability and random variables	Applying/ Remembering
				3BS305HS.2	Apply various probability distributions to solve practical problems, to estimate unknown parameters of populations	Applying
				3BS305HS.3	Find Mean, variance, moment generating function and statistical parameters of continuous probability distributions	Applying
				3BS305HS.4	To perform a regression analysis and to compute and interpret the coefficient of correlation	Remembering Analyzing
				3BS305HS.5	Evaluate t-distribution, F-distribution and chisquare distributions. Fitting of straight line, parabola and exponential curves	Applying Evaluating
2	3ES301 EC	Switching Theory and Logic Design	Mrs.J.Sowmya Mrs.B.Sowjanya	3ES301 EC.1	Illustrate the basic principles of Binary Systems, Boolean algebra and Logic Gates.	Understanding
				3ES301 EC.2	Design & Measure various physical parameters Memory and Programmable Logic & understanding of memories	Applying
				3ES301 EC.3	Apply the principles of Analysis Procedure , Design Procedure , for Binary Adder Subtractor ,Decimal Subs tractor Binary Multiplier	Remembering
				3ES301 EC.4	Design & Use various types of Synchronous Sequential Logic & Sequential Circuits. Latches. Flip-flops etc.	Analyzing
				3ES301 EC.5	Identify and understand Identify and classify types of Combinational Logic Design or Sequential Logic Design.	Understanding
3	3PC301CS	Database Management Systems	Dr T Praveen Kumar Dr. U. Moulali	3PC301CS.1	Define, explain and illustrate the fundamental concepts of databases	Understanding
				3PC301CS.2	Construct an Entity-Relationship (E-R) model from specifications and to perform the transformation of the conceptual model into corresponding logical data structures..	Analyzing
				3PC301CS.3	Model and design a relational database following the design principles	Analyzing Understanding
				3PC301CS.4	Develop queries for relational database in the context of practical applications	Evaluating
				3PC301CS.5	Define, explain and illustrate fundamental principles of data organization, query optimization and concurrent transaction processing.	Evaluating



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4	3PC302CS	Discrete Mathematics	Mr. Venkatram Vennam Mr. T Vijay Kumar	3PC302CS.1	Apply mathematical logic to solve problems	Applying
				3PC302CS.2	Illustrate by examples the basic terminology of functions, relations, and sets and demonstrate knowledge of their associated operations.	Understanding
				3PC302CS.3	Identify structures of algebraic nature and apply basic counting techniques to solve combinatorial problems.	Applying/Analyzing
				3PC302CS.4	Formulate problems and solve recurrence relations	Creating
				3PC302CS.5	Apply Graph Theory in solving computer science problems	Applying
5	3PC303CS	Computer Organization and Microprocess or	Mrs. A.Sowjanya Mrs. K Keerthi	3PC303CS.1	Explain the organization and architecture of a basic computer (CPU) with different instruction formats and addressing modes	Understanding
				3PC303CS.2	Describe the internal architecture and register organization of 8086 and the addressing modes in 8086	Understanding
				3PC303CS.3	Design and develop Assemble level programs using 8086 microprocessor instruction set	Applying
				3PC303CS.4	Explain various I/O Interfacing mechanisms	Understand
				3PC303CS.5	Analyze the performance of different memory organization techniques	Analyzing
6	3MC302HS	Essence of Indian Traditional Knowledge	Mrs. Prashanthi	3MC302HS.1	Understand the concepts of Indian culture and Traditions and their importance.	Understand
				3MC302HS.2	Distinguish the Indian languages and literature	Analyzing
				3MC302HS.3	Learn the philosophy of ancient, medieval and modern India.	Understand
				3MC302HS.4	Acquire the information about the fine arts in India	Understand
				3MC302HS.5	Know the contribution of scientists of different eras, interpret the concepts and the importance to protect Intellectual property of the nation.	Understand
7	3PC351CS	Database Management Systems Lab	Dr T Praveen Kumar Dr. U. Moulali	3PC351CS.1	Design and implement a database schema for a given problem	Creating
				3PC351CS.2	Develop the query statements with the help of structured query language.	Applying
				3PC351CS.3	Populate and query a database using SQL and PL/SQL	Applying
				3PC351CS.4	Develop multi-user database application	Applying
				3PC351CS.5	Design and implement E-R model for the given requirements	Creating





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8	3PC352CS	Computer Organization and Microprocess or Lab	Mrs. A.Sowjanya Mrs. K Keerthi	3PC352CS.1	Interpret the principles of Assembly Language Programming, instruction set in developing microprocessor based applications	Understanding
				3PC352CS.2	Design and implement programs on 8086 microprocessor	Creating
				3PC352CS.3	Understand working of instruction set and addressing modes	Understanding
				3PC352CS.4	Explore and implement the interfacing of various peripheral devices with 8086	Applying
				3PC352CS.5	Analyze the function of traffic light controller.	Analyzing
9	3PC353CS	Python Programming Lab	Mr. Shaik Rasool Ms. Sana Mateen	3PC353CS.1	Demonstrate solutions to computational problems using python programs.	Understanding
				3PC353CS.2	Solve complex problems using python functions and control structures.	Applying
				3PC353CS.3	Use Python lists, tuples and dictionaries for representing compound data.	Evaluating
				3PC353CS.4	Develop object-oriented programs with python classes	Applying
				3PC353CS.5	Develop Python programs for GUI applications	Creating
10	3PW354CS	Skill Development Course – I (IOT)	Dr. Syed Azahad Dr. Shaik Khaleel Ahamed	3PW354CS.1	Understand IoT Fundamentals: Students will comprehend the fundamental concepts and components of the Internet of Things (IoT) ecosystem.	Understanding
				3PW354CS.2	Sensor Integration: Students will be able to integrate various sensors into IoT systems to collect real-world data.	Applying
				3PW354CS.3	Data Processing and Analysis: Students will process and analyze data collected from IoT devices using appropriate techniques and tools.	Applying/ Analyzing
				3PW354CS.4	Connectivity Protocols: Students will understand and apply different communication protocols for connecting IoT devices to networks.	Applying/ Understanding
				3PW354CS.5	IoT Application Development: Students will develop IoT applications using programming languages and platforms.	Creating

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**IV SEM AY:2023-24**

S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	Blooms Taxonomy
1	3HS404HS	Optimization & Problem Solving Techniques	Mrs Hima Bindu	3HS404HS.1	Solve Linear Programming Problems by various methods	Applying
				3HS404HS.2	Finding relationship between primal and dual solution, Economic Interpretation Research.	Analyze
				3HS404HS.3	Understand the mathematical tools that are needed to solve optimization problems like Transportation models	Understanding
				3HS404HS.4	Understand the Assignment models	Understanding
				3HS404HS.5	Understand the theory of Game in operations research at the end students	Understanding
2	3PC404CS	Data Mining	Mr.Srinudhara vath Mr. D. Raja shekar	3PC404CS.1	Understand the principles of Data Warehousing and Data Mining	Understanding
				3PC404CS.2	Implement data warehouse architecture and its applications	Implement
				3PC404CS.3	Organize and prepare the data needed for data mining using preprocessing techniques	Analyze
				3PC404CS.4	Implement the appropriate data mining methods like classification, association and clustering on a given data set	Implement
				3PC404CS.5	Understand the importance of data mining application and using the most appropriate approach for the realistic strategy	Understanding
3	3PC405CS	Operating Systems	Mr .Mohd.Ilias Dr S K Shruthi	3PC405CS.1	Explains the concepts of OS along with an understanding of the process, memory and file managements and also defines the disk structure and I/O sub system	Understanding
				3PC405CS.2	Applies the knowledge of process, memory and file managements and implements the respective algorithms to find the efficacy and performance	Applying
				3PC405CS.3	Applies and executes the OS system call programs, process synchronization ,page replacement, directory and disk scheduling algorithms	Applying
				3PC405CS.4	Analyzes and studies the operating systems such as LINUX, Windows, Solaris	Analyzing
				3PC405CS.5	Evaluates the performance of synchronization examples and disk algorithms	Evaluating



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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**Faculty Teaching Methodologies Summary AY:2023-24**

4	3PC406CS	Computer Networks	Mrs K Keerthi Mrs A.Sowjanya	3PC406CS.1	Understand the concept of Computer Networks, OSI & TCP/IP reference models and discuss the functionalities of each layer in these models.	Understand
				3PC406CS.2	Apply bandwidth utilization techniques , Framming techniques ,flow and error control protocols and various addressing schemes for an efficient transmission of data through the layers.	Apply
				3PC406CS.3	Analyze various Layered architectures , transmission media , data link control protocols , MAC protocols ,address mapping protocols ,routing protocols and various application layer protocols	Analyze
				3PC406CS.4	Evaluate various routing algorithms such as unicast and multicast routing algorithms.	Evaluate
				3PC406CS.5	Discuss various classes of IP addressing and NAT with examples	Create
5	3HS403HS	Human Values Professional Ethics	Dr Sunil Solomon Mr M.L Murty	3HS403HS.1	Understand the Significance of value inputs in a classroom and start applying them in their life and profession	Understand
				3HS403HS.2	Assess their own ethical values in personal, and social contexts	Understand
				3HS403HS.3	Understand the role of a human being in ensuring harmony in family, society and nature.	Understand
				3HS403HS.4	Compare and contrast between ethical and unethical conduct within the society	Analyzing
				3HS403HS.5	Relate with the holistic perspective in students' life and profession	Understand
6	3PC455CS	Operating Systems Lab	Mr .Mohd.Ilias Dr S K Shruthi	3PC455CS.1	Evaluate the performance of different types of CPU scheduling algorithms.	Evaluate
				3PC455CS.2	Implement producer-consumer problem, reader-writers problem, Dining philosopher's problem.	Applying
				3PC455CS.3	Simulate Banker's algorithm for deadlock avoidance.	Creating
				3PC455CS.4	Implement paging replacement and disk scheduling techniques.	Applying
				3PC455CS.5	Use different system calls for writing application programs.	Applying





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Faculty Teaching Methodologies Summary AY:2023-24

7	3PC456CS	Computer Networks Lab	Mrs K Keerthi	3PC456CS.1	Understand the network services/commands for network troubleshooting and management..	Understand
				3PC456CS.2	Apply appropriate network analysis techniques to capture and examine network traffic using protocol analyzer	Applying
				3PC456CS.3	Implement datalink layer framing methods and evaluate data integrity using CRC polynomials	Creating
				3PC456CS.4	Design and simulate network topologies using software tools like Packet Tracer to analyze and optimize network configurations	Analyzing
				3PC456CS.5	Simulate and analyze the performance of various congestion control algorithms using tools like NS2/NS3/NetSim.	Analyzing
8	3PC457CS	Java Programming Lab	Mrs Vasavi Sravanthi Ms Nandhini	3PC457CS.1	To understand the concept of Object Oriented Programming Systems and use arrays, string Tokenizer.	Understand
				3PC457CS.2	To apply OOPs concepts on packages, inheritance and interface.	Applying
				3PC457CS.3	To implement java programs for exception handling and error free code.	Applying
				3PC457CS.4	To analyze java programs on Method Overloading and Method Overriding.	Analyzing
				3PC457CS.5	To implement java programs for multithreading and java collection framework.	Applying
9	3PW458CS	Skill Development Course- II	Mrs. B. Sowjanya Mrs. Unnati K	3PW458CS.1	Explain network technologies , networking model and how devices access local and remote networks.	Understand
				3PW458CS.2	Describe router hardware and Explain how switching operates in a small to medium-sized business network	Understand
				3PW458CS.3	Design an IPv4 and IPv6 addressing scheme to provide network connectivity for a small to medium-sized business network	Creating
				3PW458CS.4	Configure initial settings on a network device using Cisco command-line interface (CLI) and Implement various types of LANs and trunking in a switched network	Creating
				3PW458CS.5	Develop critical thinking and problem solving skills using Cisco Packet Tracer.	Creating

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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**Faculty Teaching Methodologies Summary AY:2023-24**

**V SEM AY:2023-24**

S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	Blooms Taxonomy
1	3PC507CS	Artificial Intelligence	Ms. Sana Mateen Dr. U. Moulali	3PC507CS.1	Understand the core principles and concepts of AI and exhibit proficiency in problem solving using search strategies, ML techniques to address real world problems.	Understand
				3PC507CS.2	Examine the issues involved in knowledge bases, reasoning systems ,planning and Automatic Speech Recognition.	Apply
				3PC507CS.3	Design and evaluate intelligent agent and expert models for perception and prediction from intelligent environment.	Analyse
				3PC507CS.4	Understand and apply fuzzy logic, utility theory and various algorithms of Machine learningenabling them to make informed decisions and manage uncertainties and consider utility in AI applications	Apply
				3PC507CS.5	Understand and Apply Natural Language Processing and Machine Learning Techniques to develop intelligent systems.	Understand
2	3ES501CS	Digital Image Processing	Mr. A.A.R Senthil Kumar Mrs. Unnati Khanapurkar	3ES501CS.1	Explain the fundamentals of digital image and its processing	Understand
				3ES501CS.2	Understand the enhancement, segmentation, restoration, compression processes on an image	Understand
				3ES501CS.3	Explore the fundamental relation between pixels and apply image enhancement, filtering techniques, morphological operations for image processing	Apply
				3ES501CS.4	Explore the utility of 2-D transforms and analyze the different linear image restoration techniques	Analyze
				3ES501CS.5	Evaluate point processing techniques, histogram manipulation, compression techniques and mathematical model for image restoration	Evaluate



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3	3PC508CS	Software Engineering	Dr.G.Saritha Mr. Srinu Dharavath	3PC508CS.1	Acquired working knowledge of alternative approaches and techniques for each phase of SDLC	Analyze
				3PC508CS.2	Judge an appropriate process model(s) for software project attributes and analyze requirements for project development	Analyze
				3PC508CS.3	Acquire skills necessary as an independent or as part of a team for architecting a complete software project by identifying solutions for recruiting problems exerting	Understand
				3PC508CS.4	Concede product quality through testing techniques employing appropriate metrics by understanding the practical challenges associated with the development of a significant software system	Apply
				3PC508CS.5	Apply the software engineering principles in real time project development	Apply
4	OE501CE	Disaster Mitigation	Mrs. Mary Soujanya	OE501CE.1	Demonstrate the concepts of disaster management	Understanding
				OE501CE.2	Identify different types of disasters	Understanding
				OE501CE.3	Explain the disaster management cycle	Understanding
				OE501CE.4	Illustrate the role of NDMA in disaster management	Understanding
				OE501CE.5	Explain the development of disaster mitigation plan	Applying
5	3PE504CS	Principles of Programming Languages	Dr. Shaik Khaleel Ahamed Mr. M Krishnamurty	3PE504CS.1	Describes the programming paradigms of modern programming languages	Understanding
				3PE504CS.2	Applies the naming conventions in defining data types for expressions and control structures in programming and compares the design issues	Applying, Analyzing
				3PE504CS.3	Demonstrates the use of sub-programs and their referencing in various languages and compares the design issues	Applying, Analyzing
				3PE504CS.4	Demonstrates object-oriented programming and functional programming in different programming environments and compares the design issues	Applying, Analyzing
				3PE504CS.5	Evaluate the relative benefits of programs designed in different language paradigms.	Evaluate



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**Faculty Teaching Methodologies Summary AY:2023-24**

6	3MC503HS	Indian Constitution	Mr. Satyapal Reddy	3MC503HS.1	To outline the history of civilization in Indian context since pre-Vedic times	Understanding
				3MC503HS.2	To outline the various schools of Indian Philosophy	Understanding
				3MC503HS.3	To demonstrate the diversity in Indian Thought ,Languages , regional culture , dress, living style etc.	Understanding
				3MC503HS.4	To Identify the various religious and social reform movements which took place in the past few centuries	Applying
				3MC503HS.5	To classify the wealth of Indian Fine Arts and the diversity associated with it over the length and breadth of the country	Understanding
7	3PC559CS	Artificial Intelligence Lab	Ms. Sana Mateen Dr. U. Moulali	3PC559CS.1	Implement basic programming constructs in Python, such as loops, conditionals, and functions.	Apply
				3PC559CS.2	Understand the problem-solving process in artificial intelligence and Design and develop solutions for informed and uninformed search problems in AI.	Apply
				3PC559CS.3	Demonstrate reasoning in first order logic using Prolog.	Apply
				3PC559CS.4	Demonstrate and enrich knowledge to select and apply python libraries to synthesize information and develop supervised learning models.	Apply
				3PC559CS.5	Utilize advanced package like NLTK for implementing natural language processing and Develop a case study in multidisciplinary areas to demonstrate use of AI.	Create
8	3ES551CS	Digital Image Processing Lab	Mr. A.A.R Senthil Kumar Mrs. Unnati Khanapurkar	3ES551CS.1	Understand how the images are read as grayscale and RGB	Understand
				3ES551CS.2	Apply the different techniques to convert the images in different forms	Apply
				3ES551CS.3	Understand the processing and implement different images filtering techniques	Understand
				3ES551CS.4	Implement edge detection	Apply
				3ES551CS.5	Compare the different DFT,DCT and DWT techniques	Apply





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**Faculty Teaching Methodologies Summary AY:2023-24**

9	3PW560CS	Skill Development Course- III	Mr.T.Vijay Kumar Mrs Harika	3PW560CS.1	Understand the basics of Android development, including the Android Studio IDE, the Android SDK, and the AndroidManifest.xml file.	Understand
				3PW560CS.2	Create an app with multiple activities that can communicate with each other using intents.	Create
				3PW560CS.3	Create a variety of user interface elements, such as buttons, text fields, and checkboxes.	Create
				3PW560CS.4	Use layouts to arrange their user interface elements in a logical and efficient way.	Apply
				3PW560CS.5	Understand how to store data in Android apps, using both local and remote storage options.	Understand
10	3HS553HS	Soft Skills Lab - I	Ms. Sona Lakshmi Ms. J. Hephzabah	3HS553HS.1	Listen to a variety of speakers and texts and will be able to comprehend and perform the required tasks.	Understand
				3HS553HS.2	Interact in a group professionally and communicate confidently in terms of both the spoken and written communication	Apply
				3HS553HS.3	Develop the skills and strategies of reading and writing.	Apply
				3HS553HS.4	Face any Interview confidently by managing time, making decisions by speaking appropriately according to the context.	Understand & Apply
				3HS553HS.5	Demonstrate right attitude and right skills to cope with team and communicate professionally.	Understand

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**Faculty Teaching Methodologies Summary AY:2023-24**

**VI SEM AY:2023-24**

S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	Blooms Taxonomy
1	3PC609CS	Design and Analysis of Algorithms	Mrs. B. Sowjanya	3PC609CS.1	Understand to compute the complexities in different algorithmic approaches like brute force, divide and conquer, greedy method, dynamic programming, describe the classes P, NP, NP-Complete problems and graph traversals	Understand
				3PC609CS.2	Solve recurrence relation using different methods and compare the different methods to generate a minimum cost spanning tree using greedy approach and implement Dijkstra's algorithm	Applying
				3PC609CS.3	Solve problems using algorithm design methods such as backtracking and branch and bound, apply the concept of graph colouring to various practical problems	Applying
				3PC609CS.4	Analyze the best approach to solve various problems like Knapsack problem, Travelling salesman problem, parallel algorithms and Differentiate deterministic and non deterministic algorithms	Analyze
				3PC609CS.5	Determine the best sorting and searching algorithm, optimal Hamiltonian circuit and whether a problem is satisfiable or not and perform asymptotic analysis	Evaluate
2	3PC610CS	Machine Learning	Dr Diana Moses Ms Sana Mateen	3PC610CS.1	Describes supervised, unsupervised, semi-supervised and Reinforcement based learning, feature selection and feature extraction methods and their appropriate evaluation procedures and metrics used for machine learning models.	Understand
				3PC610CS.2	Applies various supervised learning algorithms by applying them to different scenarios.	Applying
				3PC610CS.3	Applies various unsupervised learning algorithms by applying them to different scenarios.	Applying
				3PC610CS.4	Describes different Semi-supervised and reinforcement learning algorithms to different datasets.	Understand
				3PC610CS.5	Compares and evaluates different machine learning approaches and infers the best learning model for a given scenario using appropriate evaluation metrics.	Analyze
				3PC611CS.1	Understand the basics of automata, regular expression, push down automata, turing machine, compiler, parser, code optimization techniques	Understand





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3	3PC611CS	Automata Languages and Compiler Design	Mr Srikar Mr Sagar Babu	3PC611CS.2	Construct equivalently powerful notations for a language, including DFAs, NFAs, and regular expressions, between PDAs and CFGs	Applying
				3PC611CS.3	Design Push down automata, Turing machine	Applying
				3PC611CS.4	Construct parsing tables for different types of parsing techniques and syntax directed translations	Applying
				3PC611CS.5	Compare different memory management techniques in runtime environment and understand process of code generation	Understand
4	3PE610CS	Professional Elective – II(NLP)	Mr Mujtaba Gulam	3PE610CS.1	Apply normalization techniques on a document and evaluate a language model.	Applying
				3PE610CS.2	Implement parts of speech tagging and classification techniques on the words	Applying
				3PE610CS.3	Establish relationships among words of a sentence using word net and also build the question answering system.	Analyze and Evaluate
				3PE610CS.4	Understand the WSD and understand to use WORDNET.	Analyze
				3PE610CS.5	Analyse Chabot's, dialogue systems, and automatic speech recognition systems	Analyze
5	6OE602ME	Open Elective – II(3D Printing)	Mrs Shaziya	6OE602ME.1	Describe the fundamentals of 3d printing,classify and explain advantages and disadvantages of3D Printing technologies	Understand
				6OE602ME.2	Identify the appropriate CAD file formats and software utilized in 3D printing technology.	Understand
				6OE602ME.3	Describe the operating principles, capabilities and limitations of liquid, solid & powder based 3D Printing Technologies.	Understand
				6OE602ME.4	Compare different 3D printing technologies based on their process capabilities and applications	Understand
				6OE602ME.5	Apply the capabilities and knowledge of 3D printing in different industrial sectors.	Applying
6	3HS602HS	Effective Technical Communication(E TCE)	M.L .Murty Mrs Hephzabah	3HS602HS.1	Handle Technical Communication effectively by over coming barriers of communication	Understand, Applying
				3HS602HS.2	Use different types of Professional correspondence to communicate effectively.	Applying
				3HS602HS.3	Use different types of Business and Inter Office Correspondence	Applying
				3HS602HS.4	Acquire adequate skills drafting efficient reports	Applying
				3HS602HS.5	Enhance their skills of information transfer.	Applying





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7	3PC661CS	Machine Learning Lab	Dr Diana Moses Ms Sana Mateen	3PC661CS.1	Apply machine learning algorithms using libraries like scikit-learn to build predictive models for real-world problems.	Applying
				3PC661CS.2	Effectively use pandas,numpy and scipy to conduct exploratory data analysis and to identify patterns and trends within datasets.	Applying
				3PC661CS.3	Demonstrate the application of k-means and hierarchical clustering algorithm by implementing them on real-world datasets.	Applying
				3PC661CS.4	Evaluate the performance of various supervised learning algorithms on a dataset using appropriate evaluation metrics in python and weka.	Analyse
				3PC661CS.5	Demonstrate ensemble techniques like boosting, bagging and random forest	Applying
8	3PC662CS	Web Technology Lab	Mr. Shaik Rasool Dr Shaik Khaleel Ahamed	3PC662CS.1	Create web pages using HTML and Cascading Styles sheets.	Creating
				3PC662CS.2	Develop web applications using PHP.	Applying
				3PC662CS.3	Write a well-formed / valid XML document.	Creating
				3PC662CS.4	Write a server side java application.	Creating
				3PC662CS.5	Compare Servlet and JSP concepts and apply JSP concepts to create dynamicweb pages by reducing the code complexity.	Applying
9	3PW663CS	Mini Project	Dr .G.Saritha Dr. Syed Azahad	3PW663CS.1	Identify the engineering problem relavant to the domain interest	Applying
				3PW663CS.2	Carry Out Literature Survey for its Worthiness	Analyze
				3PW663CS.3	Analyse and Identify an appropriate technique to solve the problem	Analyze
				3PW663CS.4	Performe experiments /simmulations /Programming/Fabrication collect and interpret data	Implement
				3PW663CS.5	Document ,Prepare technical report and submit	Analyze

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**Faculty Teaching Methodologies Summary AY:2023-24**

VII SEM AY:2023-24						
S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	Blooms Taxonomy
	PC701CS	Distributed Systems	Dr.Shruthi SK Mr.K.Muralidhar	PC701CS.1	Understand the problems and challenges associated with distributed systems and analyze IPCs with various architectures implemented.	Understanding
				PC701CS.2	Analyze synchronization among processes, distributed algorithms along with the general properties of networked communication necessary through RPC and RMI interfaces.	Analyzing
				PC701CS.3	Understand the importance of security in distributed systems. Analyze with Distributed-coordination based systems to achieve Consistency and Replication.	Applying
				PC701CS.4	Differentiate about working of various Distributed file systems and Computing techniques. Apply distributed transaction control algorithms to reduce deadlocks.	Evaluating
				PC701CS.5	Analyze the Distributed web-based system for concurrency control along with the web service and distributed service oriented architecture, fault tolerance mechanisms.	Analyzing, Applying
	PE73XCS	PE -III(Software Reuse Techniques)	Ms Mariya Nadeem	PE73XCS.1	Construct a design consisting of a collection of modules.	Applying
				PE73XCS.2	Distinguish between different categories of design patterns.	Analyzing
				PE73XCS.3	Ability to understand and apply common design patterns to incremental/iterative development.	Applying
				PE73XCS.4	Ability to identify appropriate patterns for design of given problem.	Understand
				PE73XCS.5	Design the software using Pattern Oriented Architectures	Applying
	PE74XCS	PE-IV((Deep Learning)	Dr.P.Lavanya Mrs Harika	PE74XCS.1	Ability to understand the fundamentals of a Neural Network ,Perceptron and MP neuron	Understand
				PE74XCS.2	Ability to recall and apply the activation functions to Neural Networks	Applying
				PE74XCS.3	Ability to analyse the architectures of CNN and RNN	Analyzing
				PE74XCS.4	Ability to analyse the need for optimization	Analyzing
				PE74XCS.5	Ability to explain the Adversial Learning Models,	Applying





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OE701ME	OE -II (Start Up Entrepreneurs hip)	Mr Uday Kumar	OE701ME.1	Explain the Indian industrial environment, opportunities and challenges of women entrepreneur in enterprise, first-generation entrepreneur, project financing in india, Intellectual patent rights and Aspects of Start-Up.	Understanding
			OE701ME.2	Identify the characteristics of entrepreneurs, importance of linkage among small- medium and heavy industry, collaborative interaction for technology development, Concept of Patent. Start-up Policy and statargies.	Applying
			OE701ME.3	Demonstrate the principle of project formulation, various types of enterprises, market demand, Financial, profitability analysis, sources forms of Intellectual Property	Analysing
			OE701ME.4	Sumarize the economic growth and environmental influence of entpreneurship, evaluation of ideas, Patent document, Invention protection, Granting of patent, Rights of a patent, Licensing, Transfer of technology, Progress of startups in India	Understanding
			OE701ME.5	Make use of Knowledge of competence of entrepreneur, objective of small scale industry,Conception , Principles of future organizations, start-up sectors, and action plan for start-ups by Govt. of India.	Applying
PC751CS	Distributed Systems Lab	Dr.Shruthi SK Mr.K.Muralidhar	PC751CS.1	Write programs that communicate data between two hosts	Creating
			PC751CS.2	Configure Network File Systems	Understanding
			PC751CS.3	Use distributed data processing frameworks and mobile application tool kits	Applying
			PC751CS.4	Trace Communication protocols in distributed systems	Analyze
			PC751CS.5	Design of algorithm distributed system	Creating
PC752CS	Web Technologies Lab	Mrs.B.Sowjanya Mr. Shaik Rasool	PC752CS.1	Analyze a web page and identify its elements and attributes.	Analyzing
			PC752CS.2	Apply Cascading Style Sheets web pages for a good aesthetic sense of design.	Applying
			PC752CS.3	Build dynamic web pages using JavaScript	Creating
			PC752CS.4	Develop server-side scripting using Middleware Technologies for various application scenarios	Creating
			PC752CS.5	Facilitate back-end Database communication for users via Middleware Technologies	Underatanding





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PW751CS	Project Work - I	Dr T Praveen Kumar Dr. M Sarada varalakshmi	PW751CS.1	Demonstrate the ability to synthesize and apply the knowledge and skills acquired in the academic program to the real-world problems.	Applying
			PW751CS.2	Evaluate different solutions based on economic and technical feasibility	Evaluating
			PW751CS.3	Effectively plan a project and confidently perform all aspects of project management	Analyzing
			PW751CS.4	Demonstrate effective written and oral communication skill	Underatanding
			PW751CS.5	Communicate effectively by comprehending, documenting, making effective presentation and exchanging clear instructions	Evaluating
SI752CS	Summer Internship	Dr Shruthi SK	SI752CS.1	Design/ develop a small and simple product in hardware or software	Creating
			SI752CS.2	Build the task or realize a pre-specified target, with limited scope, rather taking up a COMPLEX TASK AND LEAVE IT	Analyzing
			SI752CS.3	Determine the challenges and future potential for his / her intenship organization in PARTICULAR AND THE SECTOR IN GENERAL	Analyzing
			SI752CS.4	Apply various soft skills such as time management, positive attitude and communication skills during performance of the tasks assigned in internship	Applying
			SI752CS.5	analyze the functioning of internship organization and recommend changes for improvement in processes.	Analyzing

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**VIII SEM AY:2023-24**

S. No	Course Code	Course	Course Instructor	CO No	Course Outcome	Blooms Taxonomy
1	PE85XCS	Professional Elective-V (NLP)	Mr. M.V.D.S Krishnamurthy Mr.Srinu dharavath	PE85XCS.1	Apply normalization techniques on a document and evaluate a language model	Applying
				PE85XCS.2	Implement parts of speech tagging and classification techniques on the words	Implement
				PE85XCS.3	Establish relationships among words of sentence using wordnet and also build the question answering system	Analyze
				PE85XCS.4	Understand the WSD and understand to use WORDNET	Understand
				PE85XCS.5	Analyze chatbots, Dialogue systems, and automatic speech recognition systems	Analyze
2	OE802CE	Essentials of Road Safety Engineering	Mr. Bharath Naik	OE802CE.1	Explain the fundamentals of road safety analysis	Analysing
				OE802CE.2	analyze accident data	Analysing
				OE802CE.3	illustrate the concepts of road safety audit	Understanding
				OE802CE.4	Demonstrate the applications of road signs and markings	Understanding
				OE802CE.5	Illustrate the traffic systems from road safety point of view	Understanding
3	PW861CS	Project Work-II	Dr T Praveen Kumar Dr M Sharadha varalakshmi	PW861CS.1	Demonstrate the ability to synthesize and apply the knowledge and skills acquired in the academic program to the real-world problems.	Applying
				PW861CS.2	Evaluate different solutions based on economic and technical feasibility	Evaluating
				PW861CS.3	Effectively plan a project and confidently perform all aspects of project management	Analyzing
				PW861CS.4	Demonstrate effective written and oral communication skill	Understanding
				PW861CS.5	Communicate effectively by comprehending, documenting, making effective presentation and exchanging clear instructions	Evaluating

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Course Outcomes

AY: 2023-24


III Semester

Course Code	Course Name	Course Outcomes	Taxonomy
4BS303EE	NMFS	Find the solution of algebraic and transcendental equations using numerical methods.	Apply
		Apply numerical techniques to solve ordinary differential equations and definite integrals.	Apply
		Apply numerical methods to interpolate values and fit different curves from given data.	Apply
		Expand function as a Fourier series	Apply
		Apply the solution of partial differential equations to physical problems	Apply
4PC301EE	EMF	Understand the vector calculus for electromagnetism.	Understand
		Apply the electric fields for simple configurations under static conditions	Apply
		Analyze and apply the static magnetic fields.	Analyze
		Analyze the Electrical Circuits with the concept of Network topology	Analyze
		Understand Maxwell's equation in different forms and different media	Understand
		Understand the propagation of EM wave	Understand
4PC302EE	EC-I	Explain the concepts of single phase, three phase systems and magnetic circuits	Understand
		Calculate various parameters of magnetic circuits and electrical circuits (under steady state and transient condition)	Apply
		Analyze electrical circuits with network theorems, mesh and nodal analysis methods and under resonance condition	Analyze
		Analyze electrical circuits under transient condition with and without Laplace transforms	Analyze
		Analyze a given three phase system and magnetic circuits	Analyze
4ES304CS	PPS	Explain features and structure of C, type conversion, operators, storage classes, recursion, pointers, file handling operations	Understand
		Write components of computer system, flowchart for algorithms and types of files, Pre processors	Apply
		apply the knowledge of coding for the problem solving and compilation	Apply
		apply the knowledge of conditional branching, loops, arrays and string to pass functions, call by value, call by reference with dynamic memory allocation concept.	Apply



4PC303EE	ADE	Analyze the CE,CB using small signal model , transistor biasing, feedback concept	Analyze
		Analyze the working principal of oscillators, amplifiers, its applications	Analyze
		Design the combinational circuits using basic gates	Create
		Design the sequential circuits using the basic flip flops	Create
		Analyze the A/D D/A converters, understand the different types memory devices	Analyze
4HS302HS	HVPE	Understand the Significance of value inputs in a classroom and start applying them in their life and profession	Understand
		Assess their own ethical values and the social context of problems.	Understand
		Distinguish between values and skills, happiness and accumulation of physical facilities, the Self and the Body, Intention and Competence of an individual, etc.	Understand
		Understand the role of a human being in ensuring harmony in society and nature.	Understand
		Distinguish between ethical and unethical practices and start working out the strategy to actualize a harmonious environment wherever they work.	Understand
4MC302HS	EITK	Understand the concepts of Indian culture and Traditions and their importance	Understand
		Distinguish the Indian languages and literature	Understand
		Learn the philosophy of ancient, medieval and modern India.	Understand
		Acquire the information about the fine arts in India	Understand
		Know the contribution of scientists of different eras, interpret the concepts and the importance to protect intellectual property of the nation	Understand
4PC351EE	ADE LAB	Describe and analyze different types of diodes, their operations and characteristics	Analyze
		Calculate ripple factor, efficiency and % regulation of rectifier circuits	Design
		Analyse feedback amplifiers and op-amp oscillator circuits	Analyse
		Design single, and multi-stage amplifier, wave shaping and controller circuits	Design
		Understand the characteristics of electronics devices	Understand
4ES354CS	PPS LAB	Design of p, pi and pid controllers using op-amps	Create
		Choose appropriate data type for implementing programs in C language	Apply
		Design and implement modular programs involving output operations, decision making and looping constructs	Create
		Apply the concept of arrays, pointers for implementing programs and string handling	Apply
		Design and implement programs to store data in structures and files	Create
		Develop confidence for self education and ability for lifelong learning need for computer languages	Create

  
DAC-coordinator

  
Head of Department  
Department of HOD  
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Estd : 2008

**METHODIST**

**COLLEGE OF ENGINEERING & TECHNOLOGY**

**Accredited by NAAC with A+ and NBA**

**Affiliated to Osmania University & Approved by AICTE**



### Course Outcomes

AY: 2023-24

IV Semester

Course Code	Course Name	Course Outcomes	Taxonomy
4HS403BM	MEFA	Understand the basic concepts of financial accounting classify preparation of various books of accounts	Understand
		Analyze & interpret financial statements.	Analyze
		Interpret knowledge about the functioning & working of various financial institutions.	Understand
		Apply traditional & modern techniques of capital budgeting in long term investments, to test whether to invest in a particular project or not.	Apply
		Analyze the liquidity, solvency & profitability of financial statements.	Analyze
		Evaluate the financial performance of the business unit.	Evaluate
4PC404EE	PS-I	Analyze and understand working of conventional power generation methods	Analyze
		Analyze and understand the alternate energy sources of power generation	Analyze
		Analyze concepts of economics of power generation	Analyze
		Evaluate inductance and capacitance of transmission lines	Evaluate
		Evaluate sag, string efficiency and grading of cables	Evaluate
4PC405EE	EM-I	Understand the concepts of magnetic circuits.	Understand
		Understand electrical principle, laws, and working of DC machines.	Understand
		Identify the parts of DC machines understand its operation	Apply
		Analyze the construction and characteristics and application of various types of DC generators.	Analyze
		Analyze the construction and characteristics and application of various types of DC motors and testing of motors.	Analyze
		Understand electrical principle, laws, and working of 1 – phase transformer and losses and also conduct various tests on the transformer	Understand
4PC406EE	CS	Explain the basic concepts of control systems	Understand
		Apply the concepts of time response of system, stability criterion, frequency response, state models, state transition matrix, solution of state equations	Apply
		Analyze the concepts of F-I and F-V analogous systems, Block diagram reduction technique, signal flow graph, root locus technique	Analyze
		Analyze the concept of stability analysis from bode plot, polar plot	Analyze
		Design the networks of lead, lag and lead-lag compensation using Bode plot	Create
4PC407EE	EC-II	Explain the concepts of two port network, complex frequency, transformed network, graph theory, filters and attenuators	Understand
		Find two port parameters, impedance, and network equations	Apply
		Analyze electrical circuits with the concept of network topology	Analyze
		Analyze and design various types filters and attenuators	Analyze



4ES405CS	PYP	Examine Python syntax and semantics and be fluent in the use of Python flow control and functions.	Apply
		Demonstrate proficiency in handling Strings and File Systems	Understand
		Create, run and manipulate Python Programs using core data structures like Lists, Tuples and Dictionaries.	Create
		Interpret the concepts of Object-Oriented Programming as used in Python.	Understand
		Create and animate a variety of shapes and develop an application with graphical user interface (GUI).	Create
		Implement exemplary applications related to Network Programming, Web Services and Databases in Python	Analyze
4MC403HS	IC	Have a general knowledge and back ground about the Constitution of India and its importance	Understand
		Will distinguish and understand the working of the Central, state and provincial levels of administration.	Apply
		Will be conscious about the fundamental duties, responsibilities and rights as an ideal citizen of India	Understand
		Will be able to perceive and interpret the functioning and distribution of resources between Centre and state.	Apply
		Have awareness and relate to the existing hierarchy of the social structure, election process and Grievance redressal in a democracy.	Understand
4PC452EE	EC LAB	Evaluate the time response and frequency response characteristics of R,L, C Series and parallel circuits	Evaluate
		Simplify the complicated circuits using Thevenin's, Norton's and Superposition theorems.	Analyze
		Examine various parameters of a two-port network.	Analyze
		Develop code to obtain transient analysis of electrical circuits using spice	Apply
		Evaluate the three phase power of balanced loads	Evaluate
		Analyze the networks from a given transfer function	Analyze
4PC453EE	CS LAB	Understand Performance of P, PI and PID Controllers.	Understand
		Develop PLC programs for certain applications.	Apply
		Make use of the knowledge of Data acquisition system and Industrial process control in real world.	Apply
		Develop transfer function of various control system plants practically by conducting the experiments.	Apply
		Design and Simulate the Programming and control system concepts using MATLAB.	Create
		Design of lag and lead compensation by using Networks.	Create
4ES455CS	PYP LAB	Develop solutions to simple computational problems using Python programs	Create
		Solve problems using conditionals and loops in Python	Apply
		Develop Python programs by defining functions and calling them	Create
		Use Python lists, tuples and dictionaries for representing compound data	Apply
		Develop Python programs for GUI applications	Create

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 PCC Coordinator

Head of Department  
 Department of EEE  
 Methodist College of Engg & Tech



Course Outcomes

AY: 2023-24

V Semester

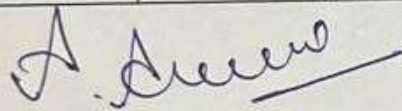
Course Code	Course Name	Course Outcomes	Taxonomy
4PC508EE	EM-II	Explain the basic concepts of 3-phase Induction Motor and Induction Generator ,BLDC Motor and Stepper Motor	Understand
		Analyze the performance of 3-phase Induction Motor	Analyze
		Analyze the principle of operation ,performance and voltage regulation methods of Synchronous motors	Apply
		Analyze the emf generated , parallel operation, starting of Synchronous generators and two reaction theory of alternators and regulation	Analyze
		Analyze double field revolving theory , equivalent circuit and starting of 1- phase Induction Motor	Analyze
4PC511EE	EMI	To explain the different types and constructions of dc and single phase / three phase ac measuring equipment used along with their governing equations	Understand
		Understand the construction and applications of ac meters, their errors, compensation and testing.	Apply
		To identify, out of the various methods using bridge circuits available , for the determination of electrical parameters of Resistance , Inductance Capacitance, and frequency and the importance of gauges and transducers	Apply
		To utilize the importance of B – H curve in electrical apparatus as in CTs and PTs and their errors	Apply
		To Examine the use of ac and dc Potentiometers for use in calibration of meters.	Analyze
4PC509EE	PE	To appraise the importance of special meters like MDI, PF , Frequency , synchro scopes , strain gauges and transducers	Evaluate
		Explain the operation & characteristics of power semiconductor devices	Understand
		Explain the triggering and commutation techniques of thyristor	Understand
		Analyze uncontrolled and controlled rectifiers	Analyze
		Analyze chopping circuits & AC voltage controllers	Analyze
4PC510EE	PS-II	Analyze cycloconverter and inverter circuits	Analyze
		Classify the transmission lines and evaluate the performance of short, medium and long transmission lines.	Apply
		Define the occurrence of corona, corona losses and the methods to minimize corona losses in the transmission. Lines	Understand
		Choose per unit values and apply for the analysis of symmetrical fault calculations.	Apply
		Understand the impact of different types of faults occurring on overhead transmission lines and evaluate fault currents.	Understand
		Elaborate the reasons for the voltage variations. and Improve the	Evaluate




		natural impedance of transmission line and significance in the operation of power system network.	
4HS504HS	ETC	Handle Technical Communication effectively by overcoming barriers of communication.	Apply
		Use different types of Professional correspondence to communicate effectively.	Apply
		Use different types of Business and Inter Office Correspondence.	Apply
		Acquire adequate skills to draft reports efficiently.	Apply
		Enhance their skills of information transfer.	Apply
4PE502EE	RES	List and Compare the various forms of non conventional energy resources and analyze the different Fuel cells with applications of fuel cells	Analyze
		Explain the solar energy applications and calculations of solar energy	Analyze
		Analyzing how wind energy can be tapped from the nature and its calculations	Analyze
		Illustrate the concepts of Geothermal ,Wave, Tidal energy & OTEC	Understand
		Outline the Biomass, its mechanism of production of energy and its applications	Understand
OE501CE	DM	Demonstrate the concepts of Disaster Management, Role of NDMA in Disaster Management	Understand
		Identify different types of disasters, Mitigation measures of each disaster, case studies of disasters	Understand
		Explain the disaster management cycle and disaster response,use of technology in disaster mitigation	Understand
		Illustrate the acts and policies of disaster management in India	Understand
		Explain the concepts of communication and public awareness along with case studies.	Understand
		Demonstrate the concepts of Disaster Management, Role of NDMA in Disaster Management	Understand
OE501AI	AI	Introduction to Artificial Intelligence, its applications and Problem solving techniques. Also the knowledge representation methods, Planning, Expert systems and their algorithms in AI	Understand
		Analyzing different searching algorithms and game playing programs to solve given problems.	Analyze
		Apply basic principles of AI in solutions that require problem solving, inference, perception, planning, knowledge representation, and learning.	Apply
		Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, probability, artificial neural networks and other machine learning models.	Evaluate
		To explore the understanding of agent based AI Planning ,logical based agents and Expert systems	Create
		Introduction to Artificial Intelligence, its applications and Problem solving techniques. Also the knowledge representation methods, Planning, Expert systems and their algorithms in AI	Understand
		Explain the Indian industrial environment, opportunities and challenges of women entrepreneur in enterprise, first-generation entrepreneur, project financing in india, Intellectual patent rights and	Understand
OE501ME	SE		



		among small- medium and heavy industry, collaborative interaction for technology development, Concept of Patent. Start-up Policy and statargies.	
		Demonstrate the principle of project formulation, various types of enterprises, market demand, Financial, profitability analysis, sources forms of Intellectual Property	Analyze
		Sumarize the economic growth and environmental influence of entrprenership, evaluation of ideas, Patent document, Invention protection, Granting of patent, Rights of a patent, Licensing, Transfer of technology, Progress of startups in India	Understand
		Make use of Knowledge of competence of entrepreneur, objective of small scale industry, Conception, Principles of future organizations, start-up sectors, and action plan for start-ups by Govt. of India.	Apply
PC459EE	EM-I LAB	Verify the theory and working of electrical machines through laboratory experimental work.	Understand
		Make circuit diagram connections to perform experiments, measure, analyze the observed data to come to a conclusion.	Evaluate
		Organize reports based on performed experiments with effective demonstration of diagrams and characteristics/graphs.	Analyze
		Determine the different parameters of a DC Motors	Understand
		Determine the different parameters of a DC Gemnerators	Analyze
PC460EE	EMI LAB	Demonstrate measurement of resistance, inductance and capacitance.	Understand
		Determine the error and calibrate the energy meter.	Apply
		Calibrate ammeter, voltmeter and wattmeter using potentiometer.	Apply
		Assess the iron loss of given specimen	Apply
		Determine the amplitude and frequency of an unknown signal.	Apply
		Determine the error and calibrate the power factor meter	Apply

  
DAC-coordinator

  
HOD  
Head of Department  
Department of FEE  
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Course Outcomes

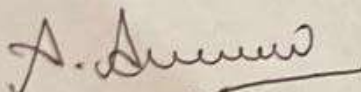
AY: 2023-24


VI Semester

Course Code	Course Name	Course Outcomes	Taxonom
4PC612EE	SGP	Acquire the knowledge of construction, working principles and testing of different electromagnetic relays, static relays, distance relays, differential relays and circuit breakers used to protect generators, Transformers, Transmission lines and distribution feeders.	Understan
		Analyze the characteristics of over current, over voltage, distance and differential relays	Analyze
		Select the ratings of relays and circuit breakers for different applications	Analyze
		Explain the construction details, advantages and disadvantages of Gas insulated sub stations	Understan
		Select the protection method used against over voltages	Analyze
4PC613EE	PECED	Apply the concepts of rectifiers to analyze DC Motor	Apply
		Control DC motors with Dual converters	Analyze
		Apply chopper concepts to analyze DC motors	Apply
		Apply AC voltage regulator concepts to analyze Induction motors	Apply
		Explain the synchronous motor operation fed by inverters	Understand
4PC614EE	MPMC	Adapt the knowledge of Architecture of 8085 and 8051, writing assembly language programming for different applications.	Create
		Explain types of microcontrollers and their applications.	Understand
		Develop a program to run on 8085 microprocessor based systems.	Apply
		Define the techniques for faster execution of instructions, improve speed of operations and enhance performance of microprocessors.	Remember
		Interpret the difference between Microprocessors and Microcontrollers.	Analyze
		Simplify and design system using memory chips and peripheral chips for 8-bit 8085 microprocessor.	Create
4ES606EC	SS	Understand the basic concepts related to continuous and discrete time signals, mathematical representation of periodic signals.	Understand
		Understand the basic concepts related to continuous and discrete time systems.	Understand
		Evaluate the concept of Laplace transform and its properties.	Evaluate
		Evaluate the concept of Z-transform and its properties.	Evaluate
		Analyze the continuous time systems in frequency domain with the help of Fourier series representation.	Analyze
		Analyze the discrete signals in frequency domain with the help of DTFT and DFT.	Analyze
4PE605EE	EV	Understand the basics of electric and hybrid electric vehicles, their architecture, technologies and fundamental	Understand
		Know about different energy storage technologies used for hybrid electric vehicles and their control.	Understand
		Choose a suitable drive scheme for developing an electric hybrid vehicle depending on resources	Create
		Design the components of electric vehicle	Create



2OE601CE	GBT	Define a green building, along with its features, benefits and rating systems	Understand
		Describe the criteria used for site selection and water efficiency methods	Understand
		Explain the energy efficiency terms and methods used in green building practices	Understand
		Select materials for sustainable built environment & adopt waste management methods	Understand
		Describe the methods used to maintain indoor environmental quality	Understand
4PC656EE	EM-II LAB	Verify the theory and working of electrical machines through laboratory experimental work.	Understand
		Make circuit diagram connections to perform experiments, measure, analyze the observed data to come to a conclusion.	Evaluate
		Organize reports based on performed experiments with effective demonstration of diagrams and characteristics/graphs.	Analyze
		Determine the different parameters of a three-phase alternator and its regulation	Understand
		Determine the different parameters of a three-phase synchronous motor as well as its 'V' and 'inverted V' curves	Analyze
		Compare the performance characteristics of different electrical machines.	Create
4PC657EE	PED LAB	Analyze the characteristics of SCR	Analyze
		Analyze firing and commutation circuits of SCR	Analyze
		Analyze various power electronic circuits	Analyze
		Analyze the operation of various motors fed by power electronic circuits	Analyze
		Simulate various power electronic circuits fed motors using MATLAB/SIMULINK software	Analyze
4HS654HS	SS LAB	Listen to a variety of speakers and texts and will be able to comprehend and perform the required tasks.	Understand
		Interact in a group professionally and communicate confidently in terms of both the spoken and written communication.	Apply
		Develop the skills and strategies of reading and writing.	Create
		Face any Interview confidently by managing time, making decisions by speaking appropriately according to the context.	Apply
		Demonstrate right attitude and right skills to cope with team and communicate professionally.	Evaluate
4PW601EE	Mini Project Seminar	Select the task or realize a prespecified target, with limited scope, rather than taking up a complex task and leave it.	Remember
		Outline the alternate viable solutions for a given problem and evaluate these alternatives with reference to pre-specified criteria.	Understand
		Choose the selected solution and document the same.	Apply
		Examine with industrial experts to familiarize the work culture and ethics of the industry.	Analyse
		Determine and enhance the confidence while communicating with industry engineers.	Evaluate
		Design/develop a small and simple product in hardware or software.	Create

  
DAC-coordinator

Head of Department  
Department of   
Methodist College of Engineering & Technology  
Abids, Hyderabad-500001  
HOD



Course Outcomes

VII Semester

AY: 2023-24

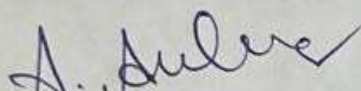
Course Code	Course Name	Course Outcomes	Taxonomy
PC428EE	CED	Develop Control Circuits for remote control and interlocking of electric drives	Create
		Explain the concept of protection of motors using various protecting equipments	Understand
		Develop control circuits for starting and braking of induction motors	Create
		Develop control circuits for starting and braking of synchronous motors	Create
		Develop control circuits for starting and braking of DC motors	Create
		Develop driver circuits for stepper motor	Create
PC429EE	PSOC	Solve load flow by appropriate modeling of the given power system and formulation of Ybus.	Apply
		Evaluate generation mix for economic operation with and without transmission losses.	Apply
		Explain load frequency control and estimate the frequency deviation through modeling.	Understand
		Analyse and describe different types of power system stability and establish SSSL.	Analyze
		Identify various methods of voltage control and study the reactive power compensation.	Apply
		Solve load flow by appropriate modeling of the given power system and formulation of Ybus.	Apply
PC430EE	PEAPS	Know the reactive power compensation	Understand
		Learn the series and shunt compensation in Power Transmission system.	Understand
		Know the application of FACTS devices in Power Transmission system.	Understand
		Study and apply the power transmission schemes – HVDC Transmission	Apply
		Implement the control circuits based on the Controlling parameters of HVDC system	Analyze
		Study mtdc transmission	Understand
PE507EE	EDS	Understand the concepts of Rate structure, Customer billing, distribution transformers in distribution systems.	Understand
		Understand the concepts of rating of distribution substation, voltage fluctuations and measures to reduce flickering, forward sweep and backward sweep methods, components & advanced metering infra and automatic metering reading in distribution SCADA.	Understand




		Networks and Network transformers, voltage drop & power loss calculations, series and shunt capacitors and power factor correction.	
		Analyze the concept of percentage voltage drop calculations, service area with multiple feeders, percentage voltage drop calculations, radial and loop types of primary feeders, unbalanced loads and voltages, economic justification for capacitors.	Analyze
		Design best capacitor location - algorithm in distribution systems.	Create
PE508EE	UEE	Explain the requirement , advantages of electric heating , welding, illumination, motor control and starting, track electrification and batteries	Understand
		Analyze the types of heating and welding , motor control methods	Analyze
		Analyze working of lamps and lighting in streets , offices and industries	Analyze
		Analyze speed time curves, characteristics and control methods of traction motors	Analyze
		Evaluate heating elements specifications, illumination , tractive effort, energy consumption, and adhesion in traction	Evaluate
OE811CE	GBT	Define a green building, along with its features, benefits and rating systems	Understand
		Describe the criteria used for site selection and water efficiency methods	Understand
		Explain the energy efficiency terms and methods used in green building practices	Understand
		Select materials for sustainable built environment & adopt waste management methods	Understand
		Describe the methods used to maintain indoor environmental quality	Understand
PC465EE	PS LAB	Interpret positive, negative and zero sequence Impedance of Transformer and Alternator	Understand
		Analyze the performance of transmission lines	Analyze
		Determine the dielectric strength of oil and the efficiency of string insulators	Evaluate
		Explain Voltage and current relay settings	Understand
		Measure the capacitance of three core cable	Evaluate
		Understand the operation of Differential protection of transformer	Understand
PC466EE	ES LAB	Compose (Write) MATLAB code using some basic commands.	Create
		Develop MATLAB code for analyzing power system network by obtaining line parameters, Z, Y matrices, and Economics of power systems	Apply
		Simulate the concepts of Electrical Circuits, to design a led, lag, led and lag compensator and obtain the characteristics by Control Systems and interpret data.	Create
		Demonstrate (Determine) the knowledge of programming environment, compiling, debugging, linking and executing variety of programs in MATLAB.	Evaluate
		Demonstrate ability to develop Simulink models for various electrical systems.	Apply
		Validate simulated results from programs/Simulink models with theoretical calculations.	Apply
		Select the task or realize a prespecified target, with limited scope, rather than taking up a complex task and leave it.	Remember
PW701EE	SI		



		alternatives with reference to pre-specified criteria.	
		Choose the selected solution and document the same.	Apply
		Examine with industrial experts to familiarize the work culture and ethics of the industry.	Analyse
		Determine and enhance the confidence while communicating with industry engineers.	Evaluate
		Design/develop a small and simple product in hardware or software.	Create
		Rephrase the basic concepts of electrical engineering and discover the implementation	Analyse
PW702EE	PW-I	Develop the design and analysis of a particular problem in project	Apply
		Formulate the programming and interpret the project	Create
		Develop the hardware	Create
		Perceive the practical knowledge within the chosen area of technology for project development	Evaluate
		Evaluate different solutions based on economic and technical feasibility	Create

  
DAC-coordinator

  
HOD  
Head of Department  
Department of FEE  
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Course Outcomes

AY: 2023-24

VIII Semester

Course Code	Course Name	Course Outcomes	Taxonomy
PE514EE	SGT	Assess the role of automation and digitization in Transmission and Distribution	Understand
		Describe the principles and requirements of the next generation future power network (or smart grid), using the latest trends in SCADA for power systems.	Apply
		Apply advanced knowledge of electrical power system operations and control	Apply
		Analyze the challenges and opportunities due to increased penetration of renewable energy sources.	Analyze
		Investigate operation and the importance of data acquisition devices and their location for Voltage and Frequency control	Analyze
PE513EE	GIRES	Identify the characteristics of renewable energy sources and converters.	Apply
		Understand the operation of power system	Understand
		Analyze the importance of power electronic systems in renewable power applications.	Analyze
		Realize the management systems for grid integration.	Analyze
		Analyze the challenges faced by the grid by integrating renewable energy sources.	Analyze
OE603CE	RSE	Demonstrate about road accidents and its study objectives. Prepare accident investigation reports and database based on data collected.	Understand
		Apply design principles for roadway geometrics improvement with various types of traffic safety appurtenances/tools	Apply
		Explain the road safety design operations, counter measures & characteristics to manage traffic including incident management	Understand
		Illustrate the concept of Road Safety Auditing its principles, procedures and code of good practice and checklists	Understand
		Explain about design and working principles of road signs and traffic signals	Understand
		Describe applications of ITS in effectively managing the traffic incidents.	Understand
PW703EE	PW-II	Rephrase the basic concepts of electrical engineering and discover the implementation	Analyse
		Develop the design and analysis of a particular problem in project	Apply
		Formulate the programming and interpret the project	Create
		Develop the hardware	Create
		Perceive the practical knowledge within the chosen area of technology for project development	Evaluate
		Evaluate different solutions based on economic and technical feasibility	Create

*A. Suleman*  
DAC Coordinator

Head of Department  
Department of EEE  
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**METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY**

**DEPARTMENT OF CIVIL ENGINEERING**

**ACADEMIC YEAR: 2023-2024**

**COURSE OUTCOMES**

**Semester : III**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	Bloom's Taxonomy Level
1	III	2BS303HS	Numerical Methods and Partial Differential	Dr. Swathi Mathur	CO1 Find the solution of algebraic and transcendental equations using numerical methods.	Understand
					CO2 Apply numerical techniques to solve ordinary differential equations and definite integrals.	Apply
					CO3 Apply numerical methods to interpolate values and fit different curves from given data.	Apply
					CO4 Find solutions of first order linear and non linear partial differential equations.	Apply
					CO5 Apply the solution of partial differential equations to physical problems.	Apply
2	III	2HS302HS	Managerial Economics & Financial Accountancy	Mrs. Robina Sulthana	CO1 Determine the responsibility and Decision making in organisation	Apply
					CO2 Understand the various factors influencing demand and market structure	Understand
					CO3 Understand the principles of accounting and solve the problem	Understand
					CO4 Analysis the financial performance	Apply
					CO5 Understand the capital structure and to take decisions on selection of projects	Understand
3	III	2ES301CS	Programming for problem solving	Mr. A A R Senthil	CO1 Understand algorithms and learn fundamental program methodologies of C programming.	Understand
					CO2 Understand control statements and derived data types with mathematical and engineering problems.	Understand
					CO3 Interpret control statements and derived data types with mathematical and engineering problems.	Apply
					CO4 Enhance skills in modular programming for solving a variety of computational challenges, including searching, sorting, and file system operations.	Apply
					CO5 Recognize pre-processor directives and user defined usage.	Understand
4	III	2PC301CE	Building Materials and Concrete Technology	Mr. Mohd Shahed Ali	CO1 Differentiate between various building materials i.e., both conventional and smart building materials.	Understand
					CO2 Illustrate the properties of concrete materials and procedures of their physical tests i.e., Cement, Aggregates, Admixtures, Reinforcing steel.	Understand
					CO3 Explain the process of plastering, pointing and damp proofing and mortars	Understand
					CO4 Demonstrate the properties of fresh Concrete & Hardened Concrete and understand the procedure for testing of concrete materials and on fresh and hardened concrete as per IS code	Understand
					CO5 Calculate the concrete mix proportions according to requirements of IS, BIS and ACI codes. Illustrate the characteristics of concrete.	Apply



**METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**DEPARTMENT OF CIVIL ENGINEERING**

**ACADEMIC YEAR: 2023-2024**

**COURSE OUTCOMES**

**Semester : III**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	Bloom's Taxonomy Level
5	III	2PC302CE	Solid Mechanics	Mr. P. Srikanth	CO1 APPLY the fundamental concepts of stress and strain in the analysis and design of axially loaded members	Apply
					CO2 ANALYSE the determinate beams to construct SFD and BMD	Analyse
					CO3 DETERMINE the bending and shear stress distribution in beams and also the stresses in members subjected to combined axial and bending stresses.	Apply
					CO4 ANALYSE the compound stresses at a point and evaluate principal stress and EVALUTE stresses in cylindrical pressure vessels.	Analyse
					CO5 EVALUATE the stresses of circular members subjected to torsion and analyze different types of springs.	Evaluate
6	III	2PC303CE	Surveying	Mr. Shaik Mohammad Imran	CO1 Explain the concepts, working principles involved in basic as well as modern surveying equipments & technologies and also defines the concepts of horizontal and vertical curves.	Understand
					CO2 Apply the knowledge of surveying & levelling in calculating lengths, bearings, areas, Volumes, reduced levels, elevation differences, plot of a ground & scale of photographs.	Apply
					CO3 Apply the knowledge of theodolite and trigonometry in finding horizontal and vertical angles, heights of inaccessible points	Apply
					CO4 Make use of knowledge of curves concept in surveying, in setting out both horizontal and vertical curves for the purpose of roadway and railway alignment	Apply
					CO5 Analyse the amount of closing error of a traverse after finding out the omitted measurements in traverse and compute the missing data	Analyse
7	III	2MC302HS	Essence of Indian Traditional Knowledge	Mr. K. Satyapal Reddy	CO1 Understand the concept of Indian culture and traditions and its importance.	Understand
					CO2 Distinguish the Indian languages and literature.	Understand
					CO3 Learn the philosophy of ancient, medieval and modern India.	Remember
					CO4 Acquire the information about the fine arts in India.	Remember
					CO5 Know the contribution of scientists of different eras, interpret the concepts.	Remember



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**COURSE OUTCOMES**

**Semester : III**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES		Bloom's Taxonomy Level
8	III	2ES351CS	Programming for Problem Solving Laboratory	Mr. A A R Senthil	CO1	Choose appropriate data type for implementing programs in C language	Understand
					CO2	Design modular programs involving I/O operations, decision making and looping constructs	Apply
					CO3	Implement modular programs involving I/O operations, decision making and looping constructs.	Apply
					CO4	Apply derived data types and implement programs to store a data in structures and files	Apply
					CO5	Develop confidence for self education and ability towards lifelong learning need of computer languages	Apply
9	III	2PC351CE	Surveying Laboratory	Mr. Shaik Mohammad Imran	CO1	Demonstrate the working principles and handling procedures of basic surveying instruments like chain, cross staff in finding out linear measurements	Understand
					CO2	Demonstrate the levelling instruments and apply the knowledge of levelling in finding out the reduced levels of ground	Apply
					CO3	Demonstrate the working principles and handling procedures of theodolite, total station and Hand-held GPS	Understand
					CO4	Make use of surveying equipment in computing lengths, areas & bearings of given field work	Apply
					CO5	Apply the knowledge of trigonometrical levelling in finding out reduced levels of elevated objects which are both accessible and inaccessible points	Apply
10	III	2PC352CE	Concrete Technology Laboratory	Mrs. Shaista Begum	CO1	Outline the importance of testing of cement and its properties	Understand
					CO2	Assess the different properties of Cement	Apply
					CO3	Assess the different properties of Fine aggregate	Apply
					CO4	Assess the different properties of Coarse aggregate	Apply
					CO5	Summarise the concept of workability and testing of concrete	Understand



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**COURSE OUTCOMES**

**Semester : IV**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	Bloom's Taxonomy Level
1	IV	2HS403HS	Human Values and Professional Ethics	Mr.M.L.Murthy	CO1 Understand the significance of value inputs in a classroom and start applying them in their life and profession.	Understand
					CO2 Assess their own ethical values and the social context of problems.	Understand
					CO3 Distinguish between values and skills, happiness and accumulation of physical facilities, the Self and the Body, Intention and Competence of an individual etc.	Understand
					CO4 Understand the role of a human being in ensuring harmony in society and nature.	Understand
					CO5 Distinguish between ethical and unethical practices and start working out the strategy to actualize a harmonious environment wherever they work.	Understand
2	IV	2ES403CS	Python Programmig Language	Mrs.Sowmya	CO1 Examine Python syntax and semantics and be fluent in the use of Python flow control and functions.	Apply
					CO2 Demonstrate proficiency in handling Strings and File Systems	Understand
					CO3 Create, run and manipulate Python Programs using core data structures like Lists, Tuples and Dictionaries.	Create
					CO4 Interpret the concepts of Object-Oriented Programming as used in Python.	Understand
					CO5 Create and animate a variety of shapes and develop an application with graphical user interface (GUI).	Create
3	IV	2PC404CE	MMS	Mr.P.Srikanth	CO1 Calculate the deflections of determinate beams due to transverse loads by various methods.	Apply
					CO2 Evaluate the buckling/critical load of columns for various end conditions using different theories.	Evaluate
					CO3 Analyse the beams subjected to unsymmetrical bending and compute the location of shear center for various sections.	Analyse
					CO4 Determine the static and kinematic indeterminacy of indeterminate structures and analyse propped cantiliver, fixed beams and continous beams using force method of analysis.	Apply
					CO5 Apply the energy principles and various energy methods to analyse beams, indeterminate trusses and frames to find deflections and redundant forces.	Apply



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**COURSE OUTCOMES**

**Semester : IV**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	Bloom's Taxonomy Level
4	IV	2PC305CE	DRCS	Mrs. Shaista Begum	CO1 Define the characteristic strength of materials and partial safety factors for load and materials & Explain the design philosophies of working stress method and Limit state method	Remember
					CO2 Apply the key concepts, theories and mathematical fundamentals to analyse and design the structural elements	Apply
					CO3 Analyze the moment capacity of structural elements & design the structural elements for flexure, shear and torsion	Analyse
					CO4 Examine the serviceability of structural elements	Evaluate
					CO5 Design simple structural members to be able to safely resist bending, shear, torsion, deflection and compression within the imposed factors of safety.	Apply
5	IV	2PC306CE	Fluid Mechanics	Dr. Bandita Naik	CO1 Illustrate the various properties of fluids and compute pressure using manometers	Understand
					CO2 Relate types of flows with the corresponding mathematical equations	Understand
					CO3 Apply principles of fluid Statics, dynamics and kinematics to make flow measurement calculations	Apply
					CO4 Make use of different fluid flow measuring devices.	Apply
					CO5 Apply dimensional analysis and model studies to fluid flow problems.	Apply
6	IV	2PC307CE	Hydrology	Ms. Shiphali Preeti Aind	CO1 Explain the interaction among various processes in the hydrologic cycle.	Understand
					CO2 Estimate net evaporation rate from waterbodies with free surface bodies	Analyse
					CO3 Develop the rainfall-runoff relationship	Apply
					CO4 Analysis of drawdown and yield in aquifers	Analyse
					CO5 Design the flood for Water Resources Structures	Analyse
7	IV	2MC403HS	Constitution of India	Mr. S. Satyapal Reddy	CO1 Read, Remember, understand the background and making of Indian constitution and its importance.	Understand
					CO2 Remember and understand the working of the Central, state and provincial levels of administration	Understand
					CO3 Remember and understand the fundamental duties, responsibilities and rights as an ideal citizen of India.	Understand
					CO4 Understand and interpret the functioning and distribution of resources between Union and state.	Understand
					CO5 Understand the existing hierarchy of the social structure, election process and Grievance redressal in a democracy.	Understand



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**COURSE OUTCOMES**

**Semester : IV**

S.no	Semester	Course Code	Course Name	Course Instructors	- COURSE OUTCOMES		Bloom's Taxonomy Level
8	IV	2PC453CE	MMS Lab	Mrs.Shaista Begum & Mr.P.Srikanth	CO1	Appraise the behaviour of ductile material under direct tension test	Understand
					CO2	Identify hardness of various metals like brass,copper,aluminium etc.	Understand
					CO3	Compute the response of the beam by deflection method	Apply
					CO4	Calculate the deflection of springs using tensile and compression tests	Apply
					CO5	Compute the torsion and impact strength using respective test setup	Apply
9	IV	2ES453CS	PP Lab	Mrs.Sowmya	CO1	Demonstrate solutions to computational problems using python programs.	Understand
					CO2	Solve complex problems using python functions and control structures.	Apply
					CO3	Use Python lists, tuples and dictionaries for representing compound data.	Apply
					CO4	Develop object-oriented programs with python classes	Create
					CO5	Develop Python programs for GUI applications	Create
10	IV	2PC454CE	BDD Lab	Mr Shahed Ali	CO1	Illustrate the basic principles of building planning and drawings as per codal provisions.	Understand
					CO2	Apply the tools of AUTOCAD software to prepare structural drawings of various building components.	Understand
					CO3	Develop plan, elevation and sectional drawings of residential buildings in AutoCAD software	Understand
					CO4	Develop isometric views of Single storey.	Apply
					CO5	Develop isometric views of Double storey residential buildings.	Apply



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**COURSE OUTCOMES**

**Semester : V**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	BT level
1	V	2ES506CE	Disaster Preparedness & Planning	Mrs. S. Deva Samyktha	CO1 Apply the concepts of disaster management to evaluate a disaster situation.	Understand
					CO2 Interpreting the causes of disaster and after effects of disasters.	Understand
					CO3 Select appropriate pre-disaster, during a disaster and post-disaster measures and framework	Understand
					CO4 Identify the disaster management acts and frameworks specific to India relevant to a situation	Understand
					CO5 Identify a suitable technological application to aid disaster management.	Apply
2	V	2PC508CE	Structural Analysis	Mr. P. Srikanth	CO1 Analyse the Arches, cables and suspension bridges for static and moving loads	Analyse
					CO2 Analyse the structure using flexibility matrix method to calculate redundant forces and sketch BMD and SFD.	Analyse
					CO3 Analyse the structure using stiffness matrix method to calculate redundant forces and sketch BMD and SFD.	Analyse
					CO4 Develop stiffness matrix using direct element method for indeterminate structures and Demonstrate the Structural analysis software packages.	Analyse
					CO5 Analyse the frames using approximate method of analysis.	Analyse
3	V	2PC509CE	Soil Mechanics	Ms. M. Madhuri	CO1 Classify the soil and interpret their index properties.	Understand
					CO2 Explain capillarity and laboratory procedure to determine the permeability parameters. Calculate the capillarity and permeability parameters of soils.	Apply
					CO3 Explain Seepage, quick sand condition and soil stresses. Draw a flow net to compute the seepage quantity in soils.	Understand
					CO4 Illustrate the mechanisms of the process of compaction and consolidation of soils, and the laboratory procedures to determine their characteristics.	Understand
					CO5 Analyse the soils for their shear strength and predict the stability of slopes	Analyse



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**Semester : V**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES		BT level
4	V	2PC302CE	Water Resource Engineering	Dr. Bandita Naik	CO1	Find crop – water requirements.	Understand
					CO2	Explain the design aspects of different types of weirs and regulatory systems	Understand
					CO3	Design different types of storage works and fixation of different levels of reservoirs.	Apply
					CO4	Analyze and design gravity dams and earthen dams.	Apply
					CO5	Analyze the different types of cross drainage structures.	Apply
5	V	2PC510CE	Hydraulic Engineering	Ms. Shipali Preeti Aind	CO1	Classify various types of flow in pipes.	Analyse
					CO2	Demonstrate friction loss in laminar and turbulent flows.	Apply
					CO3	Solve various problems in open channels.	Apply
					CO4	Illustrate the hydraulic jumps and its uses.	Apply
					CO5	Apply their knowledge of fluid mechanics in addressing problems in hydraulic machinery.	Apply
6	V	2PE606CE	Design of Steel Structures	Mrs. Shaista Begum	CO1	Explain the composition of structural steel and IS codal provisions and load combinations implemented in the design codes for steel structures	Understand
					CO2	Analyze and design simple connections between structural members including riveted and welded connections.	Analyse
					CO3	Analyze and Design of tension members	Analyse
					CO4	Analyze and Design of compression members , beams and base slab	Analyse
					CO5	Evaluate the loading on roof trusses and design of purlins	Evaluate
7	V	2PC555CE	Soil Mechanics Laboratory	Ms. M. Madhuri	CO1	Determine Specific gravity of different soils by test results, interpret and validate the same.	Apply
					CO2	Analyze particle size distribution of soil by conducting sieve analysis test	Analyse
					CO3	Analyze the behavior of soils with water by conducting tests.	Analyse
					CO4	Analyze shear strength of soils on application of stress in laboratory	Analyse
					CO5	Determine permeability and compaction characteristics of various soils.	Apply



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**Semester : V**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES		BT level
8	V	2PC556CE	Fluid Mechanics & Hydraulic Engineering Laboratory	Ms. Shipali Preeti Aind	CO1	Compute discharge flowing through streams and canals	Apply
					CO2	Determination the type of flow in pipe, and discharge through pipes and losses in pipes	Apply
					CO3	Competence in understanding flow phenomenon in open channels	Apply
					CO4	Analyze the force acting due to jets concept and its application in hydraulic machines	Analyse
					CO5	Demonstrate working principles of hydraulic pumps and turbines	Apply
9	V	PW501CE	Practice School - I	Mr. Shaik Mohammad Imran	CO1	Explain techniques, processes and tools used in the industry	Understand
					CO2	Discuss the current needs of the industry in his/her area of interest	Understand
					CO3	Explain the practical knowledge acquired in the chosen area/work done.	Understand
					CO4	Summarize and prepare a technical report on practice school completed at industry	Apply
					CO5	Adapt to work in a team or as an individual effectively	Apply
10	V	9OE516MC	Start Up & Entrepreneurship	Dr. Prabhuraj	CO1	Explain the Indian industrial environment, opportunities and challenges of women entrepreneur in enterprise, first-generation entrepreneur, project financing in india, Intellectual patent rights and Aspects of Start-Up.	Understand
					CO2	Identify the characteristics of entrepreneurs, importance of linkage among small-medium and heavy industry, collaborative interaction for technology development, Concept of Patent, Start-up Policy and statargies.	Apply
					CO3	Demonstrate the principle of project formulation, various types of enterprises, market demand, Financial, profitability analysis, sources forms of Intellectual Property	Analyse
					CO4	Sumarize the economic growth and environmental influence of entrprenurship, evaluation of ideas, Patent document, Invention protection, Granting of patent, Rights of a patent, Licensing, Transfer of technology, Progress of startups in India	Understand
					CO5	Make use of Knowledge of competence of entrepreneur, objective of small scale industry, Conception, Principles of future organizations, start-up sectors, and action plan for start-ups by Govt. of India.	Apply



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COURSE OUTCOMES							
Semester : VI							
S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES		Bloom's Taxonomy Level
1	VI	2PC614CE	CEM	Mrs.S.Deva Samyuktha	CO1	Understand the construction Industry, construction practices, and management systems for construction projects	Understand
					CO2	Apply various network theories such as PERT, CPM in construction management to construction projects	Apply
					CO3	Analyze cost-time analysis, and resource optimization techniques and apply project management software for resource optimization in construction projects	Analyse
					CO4	Understand various types of contract documents, tenders, detailed project reports, and labor acts in construction practice	Understand
					CO5	Apply optimization techniques and linear programming in construction practice	Apply
2	VI	2PC613CE	TE	Mr.R.Srikanth	CO1	Understand transportation engineering principles, historical context, and road network classification.	Understand
					CO2	Apply traffic engineering concepts to analyze traffic flow, volume, accidents, and design effective traffic signals.	Apply
					CO3	Identify pavement materials, design pavements considering soil stabilization, flexibility, and maintenance.	Apply
					CO4	Explain transportation systems management, planning, environmental impact, and the role of AI.	Understand
					CO5	Demonstrate knowledge of data collection, forecasting, and planning methodologies for transportation projects.	Understand
3	VI	2PC615CE	EE	Ms.Shiphali Preeti Aind	CO1	Determine the water demand for different cities and design the water supply network	Evaluate
					CO2	Design the components of water treatment plant and understand the concept of Building plumbing	Apply
					CO3	Calculate the sewage flow using different approaches through various sources and design the components of a simple sewerage system	Evaluate
					CO4	Illustrate sludge,activated sludge process, solid waste treatment and disposal	Apply
					CO5	Identify air and noise pollution problems, pollution control methods, mechanism and devices.	Apply



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**COURSE OUTCOMES**

**Semester : VI**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES	Bloom's Taxonomy Level
4	VI	2PC616CE	FE	Mr. Shaik Mohammad Imran	CO1 Define theories related to stress distribution of soil, types of foundations and their various bearing capacities as well as settlements	Remember
					CO2 Explain Safe bearing capacity of shallow foundations, sinking and stability of well foundations	Understand
					CO3 Explain necessity, types, methods and suitability of pile foundations, caissons, coffer dams, geotechnical investigations and dewatering techniques	Understand
					CO4 Make use of field tests and settlement analysis to calculate vertical stresses and safe bearing capacity of shallow foundations	Apply
					CO5 Make use of load tests and formulae to calculate load carrying capacities & efficiency of pile and pile groups	Apply
5	VI	2PE601CE	PSC	Mr. P. Srikanth	CO1 Explain the concept of pre-stressing and the behavior of concrete structures and recognize the general principles, methods of prestressing, and prestressing devices for pre-tensioning and post-tensioning.	Understand
					CO2 Determine the losses of pre-stress in prestressed concrete structures.	Apply
					CO3 Apply the provisions of IS- 1343(2012) code to design of prestressed concrete structures for flexure and shear.	Apply
					CO4 Analyse the two span continuous beam for different cable profile.	Analyse
					CO5 Analyse the stress in anchorage zones and design end anchorages for prestressed concrete beams and evaluate the short and long term deflections of beams.	Analyse
6	VI	2PE604CE	Advance Surveying	Mr. Shaik Mohammad Imran	CO1 Discuss basics of Photogrammetry, flight planning and stereoscopic vision	Understand
					CO2 Illustrate basics, energy interactions and sensor characteristics in Remote Sensing	Understand
					CO3 Explain Segments, Errors and Positioning modes in GPS	Understand
					CO4 Explain Map projections, data models and spatial data creation and analysis in GIS	Understand
					CO5 Determine elevations, scale and lengths of the lines from photographs	Apply
7	VI	OE602ME	3D Printing technologies	Mr. Mohd Fazil	CO1 Describe the fundamentals of 3D printing, classify and explain advantages and disadvantages of 3D Printing technologies.	Understand
					CO2 Select the suitable CAD data formats and software used in 3D Printing technology.	Apply
					CO3 Describe the operating principles, capabilities and limitations of liquid, solid & powder based 3D Printing Technologies.	Understand
					CO4 Compare different 3D printing technologies based on their process capabilities and applications.	Analyse
					CO5 Apply the capabilities and knowledge of 3D printing in different industrial Sector	Apply



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COURSE OUTCOMES							
Semester : VI							
S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES		Bloom's Taxonomy Level
8	VI	2HS653HS	SS Lab	Mrs. Jaya Shree	CO1	Listen to a variety of speakers and texts and will be able to comprehend and perform the required tasks.	Understand
					CO2	Interact in a group professionally and communicate confidently in terms of both the spoken and written communication.	Apply
					CO3	Develop the skills and strategies of reading and writing.	Apply
					CO4	Face any Interview confidently by managing time, making decisions by speaking appropriately according to the context.	Apply
					CO5	Demonstrate right attitude and right skills to cope with team and communicate professionally.	Apply
9	VI	2PC657CE	TE Lab	Mr. R. Srikanth & Mr. D. Bharath Naik	CO1	Explain the principles of testing aggregates and bitumen	Apply
					CO2	Explain the principles of traffic engineering, such as capacity, level of service and traffic signal design	Apply
					CO3	Apply the IS 2386 code to perform tests on aggregates and bitumen	Apply
					CO4	Analyze traffic data to identify patterns and trends	Apply
					CO5	Evaluate the effectiveness of transportation engineering solutions to real world problems	Apply
10	IV	2PC658CE	EE Lab	Ms. Shiphali Preeti Aind & Dr. Santosh Kumar	CO1	Determine physical, chemical and biological characteristics of water and wastewater	Evaluate
					CO2	Outline the procedure for preparations of stock and standard solutions, their handling, storage, etc	Understand
					CO3	Determine break - point chlorination	Evaluate
					CO4	Assess the quality of water and wastewater	Evaluate
					CO5	Determine the BOD, COD and bacterial density of portable water.	Understand



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**COURSE OUTCOMES**

**Semester : VII**

S.no	Sem	Course Code	Course Name	Course Instructors		COURSE OUTCOMES		
				Sec- A	Sec- B	CO	Course Outcome	Bloom's Taxonomy Level
1	VII	PC417CE	Estimation and Specification	Mrs. M. Mary Soujanya	Mrs. M. Mary Soujanya	CO1	Describe the types of estimates and different specifications required for construction works.	Understand
						CO2	Compute and prepare estimates for buildings using longwall-shortwall method and centre-line method	Apply
						CO3	Compute and prepare estimates for roads, culverts, retaining walls, over head tanks and irrigation canals	Apply
						CO4	Estimate the steel quantities required for various Civil Engineering works and also prepare bar bending schedule	Evaluate
						CO5	Analyze rates of different items of work based on specifications using Schedule of rates.	Analyse
						CO6	Summarize valuation of various Civil Engineering works using different valuation methods	Evaluating
2	VII	ES310CE	Disaster Preparedness & Planning	Ms. Shipali Preeti Ainde	Ms. Shipali Preeti Ainde	CO1	Explain the terms and concepts of disaster management	Understand
						CO2	Summarize the categories of disasters and their characteristics	Understand
						CO3	Discuss the disaster management cycle, framework and measures of pre-disaster, during disaster, post- disaster measures	Understand
						CO4	Interpret the Indian Disaster Management acts and it's framework	Understand
						CO5	Describe the application of various technologies to disaster management.	Understand
						CO6	Differentiate the various mitigative measures and implement them accordingly	Understand
3	VII	PE513CE	Prestressed Concrete	Mrs. Shaista Begum	Mrs. Shaista Begum	CO1	Explain the fundamental concepts of Prestress and systems of prestressing	Understand
						CO2	Evaluate and analyze the stresses under various conditions	Evaluate
						CO3	Estimate the various losses of prestress and deflections occurring in the pressed members for various cable profiles	Apply
						CO4	Extend the knowledge of analysis to Design a PSC beam section for the given conditions	Apply
						CO5	Extend the knowledge of analysis to Design a PSC beam section for the given conditions	Apply
						CO6	Assess the extent of bursting tension in the end block of a PSC beam and Develop the method of strengthening the end bloc	Apply



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**Semester : VII**

4	VII	PE518CE	Intelligent Transportation Systems	Mr. R. Srikanth	Mr. R. Srikanth	CO1	Demonstrate comprehension of ITS objectives, historical background, and benefits.	Understand
						CO2	Recall the data collection techniques used in ITS, including detectors, AVL, AVI, GIS, and video data collection.	Remember
						CO3	Utilize the importance of telecommunications in ITS, including information management, TMCs, and vehicle-roadside communication.	Apply
						CO4	Demonstrate comprehension of ITS functional areas including ATMS, ATIS, CVO, AVCS, APTS, and ARTS	Understand
						CO5	Recall user needs and services of ITS, including travel and traffic management, public transportation management, electronic payment, and emergency management.	Remember
						CO6	Utilize concepts of automated highway systems, including vehicles in platoons and global overview of ITS implementations, and understand impact on sustainable mobility and travel demand management.	Apply
5	VII	PE524CE	GIS and Remote Sensing	Mr. Shriak Mohammad Imran	Mr. Shriak Mohammad Imran	CO1	Illustrate basics of remote sensing, energy interactions with earth surface features and their spectral properties	Understand
						CO2	Classify different types of satellites, sensors and sensor characteristics in remote sensing	Understand
						CO3	Demonstrate the basic concepts of GIS	Understand
						CO4	Demonstrate the basic concepts of Map Projections	Understand
						CO5	Explain data models and spatial data creation in GIS	Understand
						CO6	Explain the various operations in spatial data analysis & terrain modelling	Understand
6	VII	PC460CE	Estimation and Specification Laboratory	Mr. Shahed Ali	Mr. Shahed Ali	CO1	Estimate the quantities of materials used in various construction works.	Apply
						CO2	Estimate quantities of materials used in Bridges	Apply
						CO3	Prepare rate analysis for various quantities	Apply
						CO4	Assess, the value of land and buildings.	Apply
						CO5	Compute and prepare bar bending schedule	Apply
						CO6	Compute and prepare Reports.	Apply
7	VII	MC803PY	Essence of Indian Traditional Knowledge	Ms. Prashanthi	Ms. Prashanthi	CO1	Understand the concept of Indian culture and traditions and its importance.	Remember
						CO2	Distinguish the Indian languages and literature.	Understand
						CO3	Learn the philosophy of ancient, medieval and modern India.	Understand
						CO4	Acquire the information about the fine arts in India.	Remember
						CO5	Know the contribution of scientists of different eras, interpret the concepts.	Understand



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**Semester : VII**

8	VII	PW703CE	Project Work- I	Dr. Bandita Naik & Ms. M. Madhuri	Dr. Bandita Naik & Ms. M. Madhuri	CO1	Identify and collect technical and research literature relevant to the topic of the Project	Understand
						CO2	Review, classify and explain the findings from the literature relevant to project topic.	Understand
						CO3	Identify the problem to be solved based on literature review and outline the objectives of the project	Analyse
						CO4	Demonstrate communication and presentation skills in explaining literature review, objectives and solution methodology	Analyse
						CO5	Identify and demarcate clearly the contribution towards work done in individuals and teamwork	Understand
						CO6	Make use of documentation and presentation tools to formulate and prepare an effective project report, with proper citations and references	Apply
9	VII	PW702CE	Summer Internship Evaluation	Mr. Shaik Mohammad Imran	Mr. Shaik Mohammad Imran	CO1	Explain techniques, processes and tools used in the industry	Understand
						CO2	Discuss the current needs of the industry in his/her area of interest	Understand
						CO3	Explain the practical knowledge acquired in the chosen area/work done.	Understand
						CO4	Summarize and prepare a technical report on practice school completed at industry	Apply
						CO5	Adapt to work in a team or as an individual effectively	Apply
10	VII	OE621ME	Entrepreneurship	Dr. Prabhuraj	Dr. Prabhuraj	CO1	Explain the Indian industrial environment, opportunities and challenges of women entrepreneur in enterprise, first-generation entrepreneur, project financing in india, Intellectual patent rights and Aspects of Start-Up.	Understand
						CO2	Identify the characteristics of entrepreneurs, importance of linkage among small- medium and heavy industry, collaborative interaction for technology development, Concept of Patent. Start-up Policy and statargies.	Apply
						CO3	Demonstrate the principle of project formulation, various types of enterprises, market demand, Financial, profitability analysis, sources forms of Intellectual Property	Analyse
						CO4	Sumarize the economic growth and environmental influence of entpreneurship, evaluation of ideas, Patent document, Invention protection, Granting of patent, Rights of a patent, Licensing, Transfer of technology, Progress of startups in India	Understand
						CO5	Make use of Knowledge of competence of entrepreneur, objective of small scale industry, Conception , Principles of future organizations, start-up sectors, and action plan for start-ups by Govt. of India.	Apply



**METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY**

**DEPARTMENT OF CIVIL ENGINEERING**

**ACADEMIC YEAR: 2023-2024**

**COURSE OUTCOMES**

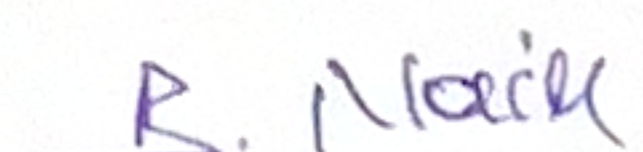
**Semester : VIII**

S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES		Bloom's Taxonomy Level
1	VIII	MC803HS	Constitution of India	Mr.Satyapal Reddy	CO1	Read, Remember, understand the background and making of Indian constitution and Its importance.	Remember
					CO2	Remember and understand the working of the Central, state and provincial levels of administration	Remember
					CO3	Remember and understand the fundamental duties, responsibilities and rights as an ideal citizen of India.	Understand
					CO4	Understand and interpret the functioning and distribution of resources between	Understand
					CO5	Understand the existing hierarchy of the social structure, election process and Grievance redressal in a democracy.	Understand
2	VIII	PE527CE	Principles of Climate Change	Mrs.Mary Soujanya	CO1	Define the impacts of climate change on natural environment.	Remembering
					CO2	Explain the fundamentals of climate system and global water balance	Understanding
					CO3	Apply the Knowledge of climate changes and its impact on Monsoon and Hydrology	Applying
					CO4	Take part in introduction of climate modelling especially using statistical downscaling techniques.	Analysing
					CO5	Select correction methods in climate science.	Applying
					CO6	Identify international initiatives which support countries to plan for climate change.	Applying
3	VIII	OE605CE	Smart Building Systems	Mrs.V.Saketha	CO1	Explain the concept of BMS, FA, security systems, access control systems, Energy management	Understanding
					CO2	Examine the BM, BA, systems, fire control pannels, FAS architecture	Analyze
					CO3	Functionality of PA Ssystem, CCTV, DVR ,DVM,	Analyze
					CO4	Examine security systems, EPBX systems, integration of systems	Analyze
					CO5	Analyze the energy saving systems IBMS architecture	Analyze



METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY							
DEPARTMENT OF CIVIL ENGINEERING							
ACADEMIC YEAR: 2023-2024							
COURSE OUTCOMES							
Semester : VIII							
S.no	Semester	Course Code	Course Name	Course Instructors	COURSE OUTCOMES		Bloom's Taxonomy Level
5	VIII	PW704CE	Project Work - II	Ms. M. Madhuri and Dr. Bandita Naik	CO1	Summarize in written form the literature study carried out with relevant data analysis, interpretation and problem identification for the selected project	Understanding
					CO2	Analyse the specific problem using engineering knowledge to arrive at a	Analysing
					CO3	obtained data using a laboratory procedure and/or modern engineering software and tools.	Creating
					CO4	recommendations or estimations, keeping in view the safety norms and regulations in codes of practice.	Understanding
					CO5	Discuss and communicate in oral and written forms, the technical contents of the project, observing professional ethical principles of documentation.	Understanding
					CO6	Demonstrate individual and teamwork skills in carrying out and managing	Analysing

  
ASSESSMENT COORDINATOR

  
HEAD OF THE DEPARTMENT

Head of the Department  
Department of Civil Engineering  
METHODIST COLLEGE OF ENGG. & TECH.  
King Koti Road, Abids, Hyderabad





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Department of Electronics and Communication Engineering

Course Outcomes

III Semester

AY: 2023-24

SNO	Course Code	Course Name	CO No.	Course Outcomes	Taxonomy
1	5PC301EC	ELECTRONIC DEVICES	CO1	Understand the PN Diode V-I Characteristics and its applications.	Creating
			CO2	Identify the merits and demerits of various Rectifier circuits with Calculation of Ripple Factor and %Efficiency.	Understanding
			CO3	Discriminate the BJT Configurations to recognize appropriate Transistor Configuration for any given application.	Analyzing
			CO4	Analyze , Compare and design of BJT Amplifiers.	Remembering
			CO5	Distinguish the working principles of BJT and FET.	Remembering
2	5PC302EC	SIGNALS AND SYSTEMS	CO1	Define and differentiate types of signals and systems in continuous and discrete time.	Understanding
			CO2	Apply the properties of Fourier transform to continuous time signals	Analyzing
			CO3	Relate Laplace transforms to solve differential equations and to determinethe response of the Continuous Time Linear Time Invariant Systems to knowninputs.	Applying
			CO4	Obtain Linear Convolution and Correlation of discrete time signals with graphical representation.	Evaluating
			CO5	Apply Z-transforms to discrete time signals to solve Difference equations.	Evaluating
3	5PC303EC	NETWORK THEORY	CO1	Able to Express given Electrical Circuit in terms of A, B, C, D and Z, Y Parameter Model and Solve the circuits and how they are used in real time applications.	Understanding
			CO2	Able to learn how to calculate properties of networks and design of attenuators.	Applying



			CO3	Able to design of equalizers.	Evaluating
			CO4	Able to design different types of filters using passive elements.	Understanding
			CO5	Able to synthesize the RL & RC networks in Foster and Cauer Forms.	Evaluating
4	5PC304EC	SWITCHING THEORY AND LOGIC DESIGN	CO1	Explain the basic concepts related to number system and their conversion.	Applying
			CO2	Analyze the Boolean logic equations and simplify using K-map and tabular method.	Analyzing
			CO3	Analyze the different combinational circuits and implement them using IC's.	Understanding
			CO4	Explain the operation of flip flops and converting one flip flop to another.	Applying
			CO5	Analyze the concepts of sequential circuits.	Understanding
5	5ES303EC	PROBABILITY THEORY AND STOCHASTIC PROCESSES	CO1	To understand different types of Random variables their density and distribution functions.	Understanding
			CO2	To learn one Random variable characteristics of different variables their density and distribution functions.	Applying
			CO3	To extend bi-variate distributions and the operations on.	Applying
			CO4	To understand elementary concepts of the stochastic process in to Temporal characteristics.	Understanding
			CO5	To understand elementary concepts of the stochastic process in to spectral characteristics.	Understanding
6	5HS302HS	MANAGERIAL ECONOMICS AND FINANCIAL ACCOUNTING	CO1	Understand the financial and Accounting aspects of a business	Analyzing
			CO2	Evaluate financial Performance of the business unit	Evaluating
			CO3	Understand about the financial system and markets	Evaluating
			CO4	Evaluate the viability of projects by using Capital budgeting Techniques.	Understand
			CO5	Analyse the overall financial functioning of an Enterprise	Evaluating



7	5MC303HS	INDIAN CONSTITUTION	CO1	Know the background of the present constitution of India.	Evaluating
			CO2	Understand the working of the union, state and local levels.	Evaluating
			CO3	Gain consciousness on the fundamentals rights and duties.	Understanding
			CO4	Be able to understand the functioning and distribution of financial resources between the states	Understanding
			CO5	Be exposed to the reality of hierarchical Indian social structure and the ways the grievances deprived section can be addressed to raise human dignity in a democratic way.	Evaluating
8	5ES304EC	PYTHON PROGRAMMING	CO1	Explain basic principles of Python programming language.	Understanding
			CO2	Create, run, and manipulate Python Programs using core data structures like Lists, Tuple, Set and Dictionaries.	Applying
			CO3	Understand and summarize different File handling operations.	Understanding
			CO4	Handle exceptions in programming.	Applying
			CO5	Identify the commonly used operations involving file systems and regular expressions.	Understanding
9	5PC351EC	ELECTRONIC DEVICES AND LOGIC DESIGN LAB	CO1	Understand characteristics of Diodes	Analyzing
			CO2	Plot the characteristics of BJT in different configurations	Understanding
			CO3	Record the parameters of BJT and FET amplifiers.	Creating
			CO4	Understand biasing techniques of BJT.	Remembering
			CO5	Design and performance evaluation of full wave rectifiers	Understanding
10	5PC352EC	NETWORK THEOREM LAB	CO1	Use the basic electronic components and design circuits.	Creating
			CO2	Verify various parameters of the circuits by applying theorems.	Analyzing
			CO3	Understand the making of PCB.	Applying
			CO4	Design various filters.	Evaluating
			CO5	Determine voltages and currents in a resonant circuit	Evaluating



11	SES353CS	PYTHON PROGRAMMING LABORATORY	CO1	Write, Test and Debug Python Programs.	Creating
			CO2	Implement Conditionals for Python Programs	Applying
			CO3	Implement Loops for Python Programs	Applying
			CO4	Use functions and represent Compound data using Lists, Tuples and Dictionaries	Applying
			CO5	Read and write data from & to files in Python and develop Application using Pygame	Applying

Dept Assessment Coordinator

T. Suman Kumar

Head of the Department  
**HEAD OF THE DEPARTMENT**  
**DEPARTMENT OF ECE**  
**METHODIST COLLEGE OF ENGG. & TECH**  
**ABIDS, HYDERABAD.**





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Department of Electronics and Communication Engineering

Course Outcomes

IV Semester

AY: 2023-24

S.no	Course Code	Course Name	CO No.	Course Outcomes	Taxonomy
1	5PC405EC	ANALOG ELECTRONIC CIRCUITS	CO1	Design and Analyze various amplifiers using BJT	Analyzing
			CO2	Analyze the frequency response of BJT	Analyzing
			CO3	Understand the concept of negative feedback and effect of negative feedback.	Understandin
			CO4	Design of different types of oscillators	Designing
			CO5	Design of power amplifiers and calculate their efficiencies.	Designing
2	5PC406EC	AUTOMATIC CONTROL SYSTEMS	CO1	Explain the concepts of control systems, time & frequency domain specification, and also concepts of state space representation.	Understandin
			CO2	Apply the concepts of networks, block diagram reduction rules, Mason's gain formula for computing the transfer function of control systems and transfer function of sample data systems.	Applying
			CO3	Analyze the modelling of mechanical systems and stability using time domain techniques.	Analyzing
			CO4	Analyze the control system stability using frequency domain techniques.	Analyzing
			CO5	Analyze the Discrete control systems and the control system in state space representation.	Analyzing
			CO1	Perform mathematical operations on fixed and floating point digital data.	Understandin



3	5PC407EC	COMPUTER ORGANISATION AND ARCHITECTURE	CO2	Illustrate the operation of a digital computer.	Analyzing
			CO3	Understand I/O interfacing of a computer.	Analyzing
			CO4	Interface microprocessor with memory devices.	Applying
			CO5	Understand latest trends in microprocessors.	Evaluating
4	5PC408EC	ELECTROMAGNETIC THEORY AND TRANSMISSION LINES	CO1	Understand the different coordinate systems, concepts of electric, magnetic fields, Electromagnetic fields and transmission line parameters	Understanding
			CO2	Apply the principles of electrostatics to the solutions of problems relating to electric field and electric potential, boundary conditions and electric energy density.	Applying
			CO3	Apply the principles of magneto statics to the solutions of problems relating to magnetic field and magnetic potential, boundary conditions and magnetic energy density	Applying
			CO4	Analyze the EM wave propagation in different mediums and understand the concept of transmission lines & their applications.	Analyzing
5	5PC409EC	IC APPLICATIONS	CO5	Analyze the SC,OC transmission lines and computing the impedance using smith chart.	Analyzing
			CO1	Explain Differentiate IC and Discrete components, understand manufacturing process of IC and how monolithic components are being developed	Understanding
			CO2	Apply Learn about the basic concepts for the circuit configuration for the design of linear, integrated circuits and & Develop skills to develop simple filter circuits and	Applying



				various amplifiers and can solve problems related to it	
			CO3	Analyze To study the block diagrams of 555 timer and 565 phase locked loops ICs and use them to construct various applications..	Analyzing
			CO4	Analyze the basic logic gates by using digital ic . Learn about various techniques to develop A/D and D/A convertors	Analyzing
			CO5	Analyze: The ability to understand, analyze and design various combinational and sequential circuits	Analyzing
6	5MC402HS	ESSENCE OF INDIAN TRADITIONAL KNOWLEDGE	CO1	To outline the history of civilization in Indian context since pre-Vedic times	Understanding
			CO2	To outline the various schools of Indian Philosophy	Understanding
			CO3	To demonstrate the diversity in Indian Thought , Languages , regional culture , dress, living style etc.	Understanding
			CO4	To Identify the various religious and social reform movements which took place in the past few centuries	Applying
			CO5	To classify the wealth of Indian-Fine Arts and the diversity associated with it over the length and breadth of the country	Understanding
7	5HS403HS	HUMAN VALUES AND PROFESSIONAL ETHICS	CO1	Ensures students sustained happiness through identifying the essentials of human values	Understanding
			CO2	Ensures students sustained happiness through identifying the essentials of professional ethics	Understanding and Analyzing
			CO3	It facilitates a correct understanding between profession and happiness	Understanding
			CO4	Understand practically the importance of trust, mutually satisfying human behaviour and enriching interaction with nature.	Understanding evaluating
			CO5	Ability to develop appropriate technologies and management patterns to create harmony in professional and personal life.	Analyzing



8	5PC453EC	AEC LABORATORY	CO1	Calculate gain and bandwidth of BJT, FET.	Understanding
			CO2	Study Feedback amplifier circuits.	Remembering
			CO3	Study oscillator circuits.	Creating
			CO4	Demonstrate filter circuits.	Understanding
			CO5	Demonstrate power amplifier and OpAmp. Circuits	Understanding
9	5PC454EC	IC APPLICATIONS LABORATORY	CO1	Study and performance of various parameters of op-amp & Construct linear and non-linear applications circuits.	Applying
			CO2	Design and Analyze different filters & their frequency comparison. (theoretical & practical)	Creating
			CO3	Design different multivibrators and their comparison. (theoretical & practical) by using IC 555	Analyzing
			CO4	Design sequential circuit synchronous & asynchronous counters	Applying
			CO5	Verify Flip-Flop conversions and latches using gates and ICs.	Applying

Dept Assessment Coordinator

T. Gnanan Kumar

Head of the Department  
 HEAD OF THE DEPARTMENT  
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 METWORLD COLLEGE OF ENGG. & TECH.  
 ABIDS, HYDERABAD.





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Department of Electronics and Communication Engineering  
Course Outcomes

V Semester

AY: 2023-24

S.no	Course Code	Course Name	CO No.	Course Outcomes	Taxonomy
1	5PC510EC	Microcontrollers	CO1	Explain the architecture of 8051	Understanding
			CO2	Write Assembly programming using 8051 microcontroller.	Applying
			CO3	Interface different peripherals to 8051 microcontroller.	Applying
			CO4	Explain the architecture of ARM controller.	Understanding
			CO5	Interface different peripherals to ARM controller.	Applying
2	5PC511EC	Digital Signal Processing	CO1	Apply the knowledge of FFT Algorithms for computation of DFT.	Understanding
			CO2	Design of FIR filters using various methods.	Applying
			CO3	Design of IIR filters using various methods.	Applying
			CO4	Apply decimation and interpolation concepts for the design of sampling rate converters.	Analyzing
			CO5	Understand and identify important features of TMS320C67XX DSP processors.	Understanding
3	5PC512EC	Analog Communication	CO1	Explain and analyze the various continuous modulation systems	Understanding
			CO2	Demonstrate and contrast the different Angle modulation schemes	Analyzing
			CO3	Illustrate and compare the pulse modulation systems	Applying
			CO4	Interpret with differentiate types of transmitters and receivers used for particular application.	Understanding
			CO5	Identify the noises present in continuous wave modulation systems and analyze Signal to Noise ratio in each system.	Analyzing
4	5PE513EC	Real Time Operating	CO1	Classify various types of kernels and operating systems	Understanding



		Systems (PE-I)	CO2	Analyse various scheduling algorithms related to RTOS.	Applying
			CO3	Summarize the Inter process communication tools.	Understanding
			CO4	Understand the elementary concepts of VxWorks.	Understanding
			CO5	Enumerate the fundamental concepts of UNIX operating system.	Understanding
5	SPE514EC	Neural Networks (PE-I)	CO1	Understand the fundamental concepts and classification of neural networks	Understanding
			CO2	Analyze and interpret the mathematical models of artificial neural networks	Analyzing
			CO3	Evaluate and compare different activation models in neural networks	Applying
			CO4	Apply the basic learning laws of neural networks	Applying
			CO5	Design and implement neural network memory systems	Analyzing
6	IOE501AD	Artificial Intelligence (OE-I)	CO1	Understand fundamental AI concepts and identify a range of symbolic and non symbolic AI techniques.	Applying
			CO2	Demonstrate an understanding of various searching algorithms such as adversarial search and game-playing commonly used in artificial intelligence software.	Applying
			CO3	Use different knowledge representation techniques used in AI Applications.	Applying
			CO4	Demonstrate an understanding of agent based AI architectures, Planning and logic based agents.	Evaluating
			CO5	Exploring Expert systems options.	Applying
7	HS 502HS	Effective Technical Communication	CO1	Handle Technical Communication effectively by overcoming barriers of communication.	Understanding
			CO2	Use different types of Professional correspondence to communicate effectively.	Analyzing
			CO3	Use different types of Business and Inter Office Correspondence.	Analyzing
			CO4	Acquire adequate skills to draft reports	Understanding



				efficiently.	
			CO5	Enhance their skills of information transfer.	Understanding
8	5PC551EC	Microcontroller Lab	CO1	To write assembly language programs using 8051 controller.	Understanding
			CO2	To develop interfacing applications using 8051 controller.	Applying
			CO3	To develop embedded C programming concepts of ARM.	Applying
			CO4	To develop ARM based programs for various interface modules	Analyzing
			CO5	Design algorithms and different programs for SFRs using C cross compilers for 8051 Microcontroller	Analyzing
9	5PC552EC	Systems and Systems Lab	CO1	Develop MATLAB files for the verification of system response.	Applying
			CO2	Design and analyze the digital filters using MATLAB.	Applying
			CO3	Verify the functionality of FFT algorithms.	Analyzing
			CO4	Experiment with multirate techniques using MATLAB & CCS.	Analyzing
			CO5	Design and implement the digital filters on DSP processor.	Evaluating
10	5PW571EC	Mini Project	CO1	Get practical experience of software design and development, and coding practices within Industrial/R&D Environments.	Understanding
			CO2	Gain working practices within Industrial/R&D Environments	Applying
			CO3	Prepare reports and deliver effective presentation.	Understanding
			CO4	Demonstrate effective written and oral communication skills.	Applying
			CO5	Innovate in various engineering disciplines and nurture their entrepreneurial ideas.	Analyzing

Dept Assessment Coordinator

*Pranav Kumar*

Head of the Department  
**HEAD OF THE DEPARTMENT**  
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Department of Electronics and Communication Engineering

Course Outcomes

AY: 2023-24

VI Semester

S.No.	Course Code	Course Name	CO No.	Course Outcomes	Taxonomy
1	5PC613EC	Digital Communication	CO1	Classify the different types of digital modulation techniques PCM, DPCM, DM and ADM and compare their performance by SNR.	Understanding
			CO2	Illustrate the classification of channels and Source coding methods.	Applying
			CO3	Distinguish different types of Error control codes along with their encoding/decoding algorithms.	Analyzing
			CO4	Examine the Performance of different Digital Carrier Modulation schemes of Coherent and Non-coherent type based on Probability of error.	Analyzing
			CO5	Generation of PN sequence using Spread Spectrum and characterize the Acquisition Schemes for Receivers to track the signals.	Analyzing
2	5PC614EC	VLSI Design	CO1	Familiarize with the constructs and conventions of the verilog HDL programming in gate level and data flow modeling.	Analyzing
			CO2	Generalize combinational and sequential logic circuits in behavioural modeling and concepts of switch level modelling.	Understanding
			CO3	Analyze modes of operation of MOS transistor and its basic electrical	Analyzing



				properties.	
			CO4	Draw sticks diagrams and layouts for any MOS transistors.	Analyzing
			CO5	Analyse the operation of various arithmetic and sequential logic circuits using CMOS transistors.	Applying
3	5PC615EC	Antenna and Wave Propagation	CO1	To illustrate the basic principles of antennas and learn the antenna terminology.	Understanding
			CO2	To design different types of wire antennas and make proficient in analytical skills for understanding practical antennas.	Applying
			CO3	To design different types of antennas for various frequency ranges and get updated with latest developments in the practical antennas.	Analyzing
			CO4	To apply the principles of antennas, to design antenna arrays and measure various parameters of antennas.	Analyzing
			CO5	To Identify and understand the suitable modes of Radio Wave propagation used in current practice.	Understanding
4	5PE621EC	Embedded System Design (PE-II)	CO1	After completing this course, the student will be able to:	Understanding
			CO2	Understand the fundamentals of the embedded system design.	Understanding
			CO3	Enumerate the instruction set of ARM Processor by studying the architecture of ARM core.	Applying
			CO4	Acquire knowledge on the serial, parallel and network communication protocols.	Applying
			CO5	Learn the embedded system design life cycle and co-design issues.	Understanding
5	5PE631EC	Internet of Things (PE-III)	CO1	Understand the various applications of IoT and other enabling technologies.	Understanding



			CO2	Comprehend various protocols and communication technologies used in IoT.	Applying
			CO3	Design simple IoT systems with requisite hardware and Python programming software.	Analyzing
			CO4	Understand the relevance of cloud computing and data analytics to IoT.	Understanding
			CO5	Comprehend the business model of IoT from developing a prototype to launching a product.	Applying
6	5PE632EC	Cyber Security (PE-III)	CO1	Analyze and evaluate the cyber security needs of an organization.	Understanding
			CO2	Understand Cyber Security Regulations and Roles of International Law.	Applying
			CO3	Design and develop security architecture for an organization.	Applying
			CO4	Understand fundamental concepts of data privacy attacks.	Understanding
			CO5	Understand the defensive techniques against these attacks	Understanding
7	3OE602CS	Software Engineering (OE-II)	CO1	Acquired working knowledge of alternative approaches and techniques for each phase of SDLC.	Understanding
			CO2	Judge an appropriate process model(s) for software project attributes and analyze requirements for project development.	Understanding
			CO3	Acquire skills necessary as an independent or as part of a team for architecting a complete software project by identifying solutions for recurring problems exerting	Applying
			CO4	Concede product quality through testing techniques employing	Applying



				appropriate metrics by understanding the practical challenges associated with the development of a significant software system	
			CO5	Apply the software engineering principles in real time project development.	Applying
8	4OE602EE	Electric Vehicle Technology	CO1	To identify and describe the history and evolution of electric & hybrid electric vehicles to emphasize on the need and importance of EV/HEV for sustainable future.	Understanding
			CO2	To identify and describe the principles of various EV/HEVs drive train topologies along with their power flow control and fuel efficiency estimation.	Applying
			CO3	To design and select electric propulsion system components for EV/HEV drives suitability for the desirable performance and control.	Understanding
			CO4	To compare and evaluate various energy sources and energy storage components for EV and HEV applications.	Applying
			CO5	Students will also be able to address practical challenges in integrating EV charging infrastructure with grid systems and renewable energy sources.	Applying
9	5PC651EC	Analog /Digital Communication Lab	CO1	Understand and simulate modulation and demodulation of AM and FM.	Applying
			CO2	Construct pre-emphasis and de-emphasis at the transmitter and receiver respectively.	Applying
			CO3	Understand and simulate the PAM, PWM & PPM circuits	Applying




			CO4	Understand baseband transmission (i.e., PCM, DPCM, DM, and ADM) generation and detection.	Analyzing
			CO5	Understand error detection and correction.	Analyzing
10	5PC652EC	VLSI Design Lab	CO1	Write the Verilog HDL programs in Gate level and Data flow Modelling.	Applying
			CO2	Implement combinational and sequential circuits using Verilog.	Creating
			CO3	Analyse digital circuits using VLSI CAD tools like DSCH, Microwind.	Applying
			CO4	Design CMOS circuits like basic gates, adders at the transistor level.	Analyzing
			CO5	Implement the layout of simple CMOS circuits like inverter and basic gates.	Analyzing
11	HS 553HS	Soft Skills Lab	CO1	Listen to a variety of speakers and texts and will be able to comprehend and perform the required tasks.	Applying
			CO2	Interact in a group professionally and communicate confidently in terms of both the spoken and written communication.	Creating
			CO3	Develop the skills and strategies of reading and writing.	Applying
			CO4	Face any Interview confidently by managing time, making decisions by speaking appropriately according to the context.	Analyzing
			CO5	Demonstrate right attitude and right skills to cope with team and communicate professionally.	Analyzing
12	5PW774EC	Summer Internship	CO1	Acquire practical experience of software design and development, and coding practices within Industrial / R&D Environments	Understanding



			CO2	understand working practices within Industrial/R&D Environments	Applying
			CO3	Prepare reports and deliver effective presentation.	Analyzing
			CO4	demonstrate effective written and oral communication skills	Analyzing
			CO5	Innovate in various engineering disciplines and nurture their entrepreneurial ideas.	Applying

  
 Dept Assessment Coordinator

T. Sravan Kumar

  
 Head of the Department  
 HEAD OF THE DEPARTMENT  
 DEPARTMENT OF BCE  
 METHODIST COLLEGE OF ENGR & TECH  
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Estd : 2008

Department of Electronics and Communication Engineering

Course Outcomes

AY: 2023-24 (AICTE Model Curriculum)

VII Semester

S.no	Course Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	PC416 EC	MICROWAVE THEORY AND TECHNIQUES	CO1	Analyze the propagation of Guided waves in different modes between parallel planes.	Understanding
			CO2	Evaluate different parameters (Like impedance, attenuation and quality factor.) for Rectangular & Circular Waveguides & Cavity Resonators.	Applying
			CO3	Determine Scattering parameters of different microwave components and analyze their properties.	Applying
			CO4	Integrate the concept of bunching and velocity modulation to summarize the operation of microwave tubes and the high frequency limitations of conventional tubes.	Analyzing
			CO5	Analyze the principle, operation and characteristics of different microwave solid state devices.	Evaluating
2	PE511EC	FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (PE-III)	CO1	Identify problems that are amenable to solution using State space search algorithms.	Analyzing
			CO2	Understand and analyze working of an AI technique using Heuristic search.	Understanding
			CO3	Understand and design the Bayesian Networks.	Analyzing
			CO4	Understand and apply the concepts of Markov Decision process.	Understanding
			CO5	Apply of AI concepts to Reinforcement Learning.	Applying
3	PE515EC	CELLULAR AND MOBILE COMMUNICATIONS (PE-IV)	CO1	Understand the method of selection and reuse of a set of frequency channels, Base station requirement.	Understanding
			CO2	Appreciate and understand the methods of electromagnetic wave propagation in cellular communication.	Analyzing
			CO3	Identify different a methods of mobile access	Applying



				technologies and which of them suitable for mobile cellular solutions.	
			CO4	Explain features, authentication, operational details of GSM and CDMA mobile cellular system.	Applying
			CO5	Understand the development and limitation of the preliminary and advanced generation of mobile systems and the present trends.	Understanding
4	OE 816 IT	Cyber Security (OE-II)	CO1	Analyze and evaluate the cyber security needs of an organization.	Understanding
			CO2	Understand Cyber Security Regulations and Roles of International Law.	Applying
			CO3	Design and develop security architecture for an organization.	Applying
			CO4	Understand fundamental concepts of data privacy attacks.	Understanding
			CO5	Understand the defensive techniques against these attacks	Understanding
6	PC460EC	Embedded systems IoT applications	CO1	Understand the usage of IDE tools	Understanding
			CO2	Develop interfacing applications like display devices and input devices using ARM Processor	Applying
			CO3	Develop program using ARM processor to read the sensor values and display them	Analyzing
			CO4	Develop the IoT applications using Arduino/Raspberry Pi	Analyzing
			CO5	Utilize the thingspeak cloud to display the sensor values	Understanding
7	PC461EC	MICROWAVE LAB	CO1	Analyze frequency, Wave length, SWR and Impedance for Reflex klystron Oscillator by using its equation	Analyzing
			CO2	Evaluate of mode characteristics of Reflex klystron and V-I Characteristics of Gunn diode.	Evaluating
			CO3	Analyze of the characteristics of Circulator, Isolator, Directional Coupler, Tees like (Magic tee, E & H plane tees) using the Scattering parameters.	Analyzing
			CO4	To analyze the radiation pattern of antenna	Analyzing
			CO5	Generate the Radiation pattern of different antennas like Yagi-Uda and Horn Antenna and measure the gain of the antennas.	Analyzing
8	PW702EC	SUMMER	CO1	Apply knowledge and skills learned in company/industry/organization to real-world problems.	



10	PW703EC	INTERNSHIP	CO2	Demonstrate knowledge of contemporary issues related with engineering in general.	
			CO3	Effectively use new tools and technologies for solving engineering problems.	
			CO4	Gain experience related to working practices within Industrial/R&D Environments.	
			CO5	Prepare reports and other relevant documentation.	
			CO1	Demonstrate the ability to synthesize and apply the knowledge and skills acquired in the academic program to the real-world problems.	Analyzing
	MAJOR PROJECT PHASE-I		CO2	Evaluate different solutions based on economic and technical feasibility.	Analyze
			CO3	Effectively plan a project and confidently perform all aspects of project management	Creating
			CO4	Demonstrate effective written and oral communication skills.	Creating
			CO5	Find relevant sources (e.g., library, Internet, experts) and gathers information for preparing reports and other relevant documentation.	Creating

Dept Assessment Coordinator

T. Srinivas Kumar



Head of the Department

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DEPARTMENT OF ECE

METHODIST COLLEGE OF ENGG. & TECH

ABIDS, HYDERABAD.





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Estd : 2008

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Department of Electronics and Communication Engineering

Course Outcomes

AY: 2023-24 (AICTE Model Curriculum)

VIII Semester

S.no	Course Code	Course Title	CO No.	Course Outcome	TAXONOMY
1	PE520 EC	RADAR SYSTEMS (PE-V)	CO1	Demonstrate and understand the factors detecting the radar using radar range equation.	Understanding
			CO2	Illustrate various types of radars and their variation displays in radars	Analyzing
			CO3	Explain different types of MTI radars and Non coherent MTI radar	Analyzing
			CO4	Illustrate on radar tracking methods and differences among them.	Remembering
			CO5	Explain search radars and various antennas used in radars.	Understanding.
2	PE 523 EC	GLOBAL NAVIGATION SATELLITE SYSTEMS (PE-VI)	CO1	Explain the concepts of fundamentals & Segments of GPS and its error & different types of dilution of precision.	Understanding
			CO2	Describe the Global & Indian regional satellites system and its features.	Understanding
			CO3	Apply the concepts time references on satellite & Calculate different error's in GPS and can design the system in GPS and can design the system with improved accuracy.	Applying
			CO4	Analyze the GPS errors and their modelling techniques.	Analyzing
			CO5	Design Analyze the different types of GNSS Architectures	Designing
3	OE603 CE	ESSENTIALS OF ROAD SAFETY ENGINEERING (OE-III)	CO1	Understand fundamental principles of road safety.	Understanding.
			CO2	Analyze traffic safety data using statistical methods and engineering techniques.	Understanding
			CO3	Apply geometric design principles and integrate safety features into road infrastructure.	Applying
			CO4	Master traffic management systems to enhance road safety.	Understanding
			CO5	Conduct road safety audits and develop comprehensive safety management systems.	Applying
4	PW 704 EC	MAJOR PROJECT PHASE-II	CO1	Demonstrate the ability to synthesize and apply the knowledge and skills acquired in the academic program to the real-world problems.	Analyzing
			CO2	Evaluate different solutions based on economic and	Analyzing



			technical feasibility.	
		CO3	Effectively plan a project and confidently perform all aspects of project management	Applying
		CO4	Demonstrate effective written and oral communication skills.	Analyzing
		CO5	Find relevant sources (e.g., library, Internet, experts) and gathers information for preparing reports and other relevant documentation.	Creating

Dept Assessment Coordinator

T. Suman Kumar

Head of the Department

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**DEPARTMENT OF MECHANICAL ENGINEERING**

**III-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

	SN O	Code	subject	Name of the faculty	COs	Course Outcomes	Taxonomy
	1	6PC301ME	Thermodynamics	Mr.G Bhasker	CO1	Apply concept of temperature and temperature scale	Apply
					CO2	Apply the first law of thermodynamics for simple open and closed systems under steady and unsteady conditions.	Apply
					CO3	Apply second law of thermodynamics to open and closed systems and calculate entropy and availability.	Apply
					CO4	Derive simple thermodynamic relations of ideal and real gases	Create
					CO5	Apply Rankine cycle to steam power plant and compare few cycle improvement methods	Apply
	2	6PC302ME	Strength of material	Mr. Y mm REDDY	CO1	Define stresses and strains, explain stress-strain diagram and classify the beams, loads and springs.	Understand
					CO2	Apply basic concepts to find various types of stresses, strain energy and properties of beams and also to select suitable spring for the application	Apply
					CO3	Analyze stresses in cylinders, beams and springs for the given loading conditions	Analyze
					CO4	Measure stresses, torque, slope, deflection, shear force and bending moment for various types of beams under loading conditions	Apply
					CO5	Construct stress- strain diagram, Shear force and bending moment diagrams for the given material under given loading conditions.	Create
	3	6PC303ME	Metallurgy and Material science	Dr.Arajasekhar	CO1	Discuss crystal structure, mechanical behaviour and heat treatment methods applied to ferrous and non ferrous materials.	Understand
					CO2	Analyse mechanical failure, crack growth and crack propagation in ductile and brittle materials under static and dynamic loading.	Understand
					CO3	Sketch and interpret Iron-Iron Carbide and other equilibrium diagrams.	Apply
					CO4	Compare and select suitable material and heat treatment process for a particular requirement.	Analyze
					CO5	Discuss properties and applications of ferrous and non ferrous alloys, polymers, ceramics and composite materials.	Understand
	4	6PC301CS	Programming for Problem solving	Dr. Md Fakhrudin	CO1	Formulate algorithms and learn fundamental program methodologies of C programming.	Creating
					CO2	Understand control statements and interpret derived data types with mathematical and engineering problems.	Understanding
					CO3	Develop modular programming techniques to solve searching, sorting and file system problems	Analysing
					CO4	Identify pre-processor directives and user defined usage.	Identifying
					CO5	Interpret Arrays (1-D, 2-D), Strings and its library functions	Evaluating





**DEPARTMENT OF MECHANICAL ENGINEERING**

**III-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

III SEM	SN O	Code	subject	Name of the faculty	COs	Course Outcomes	Taxonomy
	5	6BS303HS	Numerical Methods and Partial differential Equation	Dr. Kalyani	CO1	Find the solution of algebraic and transcendental equations using numerical methods.	Understand
					CO2	Apply numerical techniques to solve ordinary differential equations and definite integrals.	Apply
					CO3	Apply numerical methods to interpolate values and fit different curves from given data	Apply
					CO4	Find solutions of first order linear and non linear partial differential equations	Apply
					CO5	Apply the solution of partial differential equations to physical problems	Apply
	6	6HS303HS	Human Value and Professional Ethics	Mr. Murthy	CO1	Understand the Significance of value inputs in a classroom and start applying them in their life and profession	Understand
					CO2	Assess their own ethical values and the social context of problems.	Understand
					CO3	Distinguish between values and skills, happiness and accumulation of physical facilities, the Self and the Body, Intention and Competence of an individual, etc.	Understand
					CO4	Understand the role of a human being in ensuring harmony in society and nature.	Understand
					CO5	Distinguish between ethical and unethical practices and start working out the strategy to actualize a harmonious environment wherever they work.	Understand
	7	6PC351ME	Metallurgy and Material Testing lab	Mrs I Sowjanya & Mr. YMM REDDY	CO1	Apply the procedure for preparing the sample for metallographic observation and Identify different materials by examining the phases in their microstructure	Apply
					CO2	Analyze the effects of various heat treatment by studying the grain structure	Analyze
					CO3	Determine the tensile, compressive and impact strength for various materials	Evaluate
					CO4	Measure hardness, shear strength for various materials	Evaluate
					CO5	Determine the shear force, bending moment and Young's modulus of different beams under various loading conditions.	Evaluate
	8	6PC352ME	Computer Aided Machine Drawing	Dr. Ravichander	CO1	Develop the skills in drafting various machine components using Auto Cad software	Understand
					CO2	Interpret the conventions & symbols used in technical drawings into their physical meanings & vice versa	Understand
					CO3	Construct orthographic views of simple machine components	Apply
					CO4	Demonstrate the working knowledge in solidworks to model, assemble and generate orthographic views.	Understand
					CO5	Develop 3D models, assemble and generate drawings of components using Solidworks. Observe 3D interactive CAD models and determine the steps used in modelling them.	Evaluate





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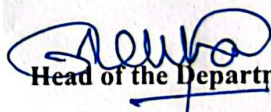


**DEPARTMENT OF MECHANICAL ENGINEERING**

**III-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

SN O	Code	subject	Name of the faculty	COs	Course Outcomes	Taxonomy
9	6ES351CS	Programming for Problem solving Lab	Dr. Md Fakhruddin	CO1	Understand the fundamentals of programming in C Language.	Understanding
				CO2	Write, compile and debug programs in C.	Creating
				CO3	Formulate solution to problems and implement in C.	Creating
				CO4	Effectively choose programming components to solve computing problems	Applying
				CO5	Program illustrating using Command Line Arguments	Understanding
10	6MC351ME	Solid Edge certification course	Mr. Abdul Fazal	CO1	Make 3D mechanical part models in Solid Edge by employing ordered and synchronous modelling techniques.	Apply
				CO2	Use Solid Edge to assemble, identify interference, and analyze the motion of complicated equipment.	Analyze
				CO3	Adjust imported geometries in neutral formats such as IGES, STEP, and Para-solid in accordance with specifications.	Apply
				CO4	Use Solid Edge to analyze and optimize parts and assemblies through simulations.	Create
				CO5	Recognize how production drawings and tools are developed in order to create rendered pictures of products.	Understand

  
 Dept. Assessment Coordinator

  
 Head of the Department  
**H.O.D.**

**Mechanical Engineering Department**  
**Methodist College of Engg & Tech**  
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## DEPARTMENT OF MECHANICAL ENGINEERING

### IV SEMESTER - BE CO-PO Matrix FOR A.Y :2023-2024

S No	Co de	subject	Faculty Name	CO No.	Course Outcomes	Taxonomy Level
1	6ES403CS	Python Programming	Dr. Fakhruddin H.N	CO1	How to be able to introduce core programming basics	Remembering
				CO2	Design program with functions using Python programming language.	Creating
				CO3	Summarize a range of Object-Oriented Programming.	Understanding
				CO4	Organize in-depth data and information processing techniques.	Applying
				CO5	Match the high-performance programs designed to strengthen the practical expertise	Remembering
2	6PC404ME	Applied Thermodynamics	Mr. Y.M.M Reddy	CO1	Understand the principles and types of air compressors, internal combustion engines, combustion in IC engines, steam boilers, steam power plants and nozzles	Understanding
				CO2	Demonstrate the safe operation and maintenance of air compressors, IC engines, steam power plants, boilers and nozzles	Applying
				CO3	Apply the principles of thermodynamics and fluid mechanics to analyze the thermodynamic cycles of IC engines and evaluate their	Applying
				CO4	Apply knowledge of IC engine design and operation to perform basic maintenance and repair tasks safely and effectively	Applying
				CO5	Analyze and evaluate the performance of different types of air compressors, types of steam boilers, nozzles, IC engines and factors affecting combustion in IC engines	Analyzing
3	6PC405ME	Manufacturing Processes	Dr. A. Rajasekhar	CO1	Describe the basic principle and working of various types of basic manufacturing processes.	Understanding
				CO2	Discuss the materials, equipment and tooling used in various manufacturing processes.	Understanding
				CO3	State the advantages and limitations of various manufacturing	Remembering
				CO4	Select appropriate manufacturing process based on the type of industrial use/application.	Understanding
				CO5	Demonstrate the knowledge in identifying the possible defects, their causes and remedies of various manufacturing processes.	Applying
4	6PC406ME	Fluid Mechanics & Hydraulic Machines	Dr. M. Uday Kumar	CO1	Explain the concepts of properties of fluids , Types of flows, flow through pipes, Hydraulic Turbines and pumps	Understanding
				CO2	Interpret the knowledge of pressure measurement devices, stream lines and pathlines, shear stress and pressure gradient relationship, pelton, Francis, Kaplan turbines, centrifugal and reciprocating pumps	Evaluating
				CO3	Analyze the pressure gauges and Manometers, continuity, stream and velocity functions, total energy lines, velocity triangles of turbines and pumps	Analyzing
				CO4	Develop the equations of motion, Darcy-Weisbach equation, workdone and efficiencies of turbines and pupms	Applying
				CO5	Estimate the coefficient of discharge of flow meters, friction factors, drag and lift coefficients, efficiencies, unit quantities and specific	Applying





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## DEPARTMENT OF MECHANICAL ENGINEERING

### IV SEMESTER - BE CO-PO Matrix FOR A.Y :2023-2024

S No	Co de	subject	Facult y Name	CO No.	Course Outcomes	Taxonomy Level
5	6PC407ME	Kinematics of Machines	Mr. Srikanth R	CO1	Recall & relate the theoretical terms, concepts used in Machine Kinematics; position, velocity & acceleration analysis; Friction & its	Understand
				CO2	Determine the velocity & acceleration of any point on planar mechanisms with simple revolute & prismatic joints as well as gears	Apply
				CO3	Apply the knowledge of friction to solve problems on Belts/rope drives, Brakes & Dynamometers.	Apply
				CO4	Analyse the effect of variation in dimensions of a mechanism on motion (position, velocity & acceleration) using CAD software like OnShape or Fusion 360.	Analyze
				CO5	Evaluate the given mechanism for potential problems in the view of requirements provided & eliminate them.	Evaluate
6	6MC402HS	Essence of Indian Traditional Knowledge	Ms. Deepthi	CO1	Understand the concepts of indian culture and traditions and their importance.	Understanding
				CO2	Distinguish Indian languages and literature.	Understanding
				CO3	Learn the philosophy of ancient,medieval and modern India.	Understanding and Applying
				CO4	Acquire the information about the fine arts of India.	Understanding and Applying
				CO5	Know the contribution of scientists of different eras,interpret the concepts and the importance to protect intellectual property of the	Understanding
7	6ES453CS	Python Programming Lab	Dr. Fakhruddin H.N	CO1	Develop solutions to simple computational problems using Python programs	Applying
				CO2	Solve problems using conditionals and loops in Python	Applying
				CO3	Develop Python programs by defining functions and calling them.	Applying
				CO4	Make use of Python lists, tuples and dictionaries for representing compound data.	Applying
				CO5	Develop Python programs for GUI applications	Applying
8	6PC453ME	Applied Thermodynamics Lab	Mr. Y.M.M Reddy	CO1	Determine volumetric efficiency and isothermal efficiency of a two stage reciprocating air compressor.	Evaluating
				CO2	Construct port timing diagram of two stroke engine, valve timing diagram of four stroke engine	Applying
				CO3	Evaluate the performance of internal combustion engines	Evaluating
				CO4	Develop heat balance sheet of internal combustion engine	Creating
				CO5	Determine the properties of (flash point, fire point, viscosity, etc---) given lubricating oil	Evaluating





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**DEPARTMENT OF MECHANICAL ENGINEERING**

**IV SEMESTER - BE CO-PO Matrix FOR A.Y :2023-2024**

S No	Co de	subject	Faculty Name	CO No.	Course Outcomes	Taxonomy Level
9	6PC454ME	Manufacturing Processes Lab	Mrs.Shazia Anwar	CO1	Explain the design of patterns, mould making procedures and testing the sand properties.	Understanding
				CO2	Apply the various joining techniques to fabricate different geometries.	Applying
				CO3	Demonstrate the blanking and piercing operations for simple components..	Remembering
				CO4	Classify the Applications of plastics and manufacture a simple component by using plastic injection moulding processes..	Applying
				CO5	Evaluate the mechanical properties of welded joints.	Applying
10	6PC455ME	Fluid Mechanics & Hydraulic Machines Lab	Dr. M. Uday Kumar	CO1	Determine the Coefficient of Discharge of Venturimeter and Orifice meter	Analyzing
				CO2	Evaluate the performance of Centrifugal, Reciprocating, Gear, Self priming pumps	Evaluating
				CO3	Evaluate the performance of Pelton ,Francis ,Kaplan Turbines	Evaluating
				CO4	Determine the coefficient of Jet on Vanes	Applying
				CO5	Explain the principles of Hydraulic and Pneumatic circuits and models	Understanding

Dept. Assessment Coordinator

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**DEPARTMENT OF MECHANICAL ENGINEERING**

**V-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

SN O	Code	subject	Name of the faculty	COs	Course Outcomes	Taxonomy
1	6PC508ME	Computer aided design and Manufacturin	Mrs Shazia Anwar	CO1	Understand the fundamental concepts and principles of CAD and evaluate geometric transformations in both 2D & 3D design space.	Understand
				CO2	Apply the concepts and principles of wireframe modelling to create accurate representation of objects.	Apply
				CO3	Create realistic and funtional designs by combining surface, solid and assembly modelling techniques effectively.	Create
				CO4	Create Numerical Control (NC) programs using different methods of part programming bothy manual and computer assisted programming tools.	Create
				CO5	Understand the basic concepts and components of Flexible Manufacturing Systems (FMS), and Automated Material Handling Systems.	Understand
2	6PC509ME	DME - Design of Machine Elements	Mr. Abdul Fazal	CO1	Recognize the norms, codes, theories of failure, power screws, joint design considerations, stress, stresses, and mechanical components such as couplings, shafts, keys, and joints.	Remember
				CO2	For a specific application, choose the right shafts, keys, couplings, and permanent and temporary joints.	Apply
				CO3	Demonstrate the ability to apply the fundamentals of stress analysis, theories of failure and material science in the design of Mechanical components of shafts, keys,	Apply
				CO4	Examine and assess power screws, joints, shafts, and important couplings that are subjected to both static and dynamic loads.	Analyze
				CO5	Using a variety of empirical relations, design keys, couplings, and permanent and temporary joints for a	Create
3	6PC510ME	Metrology and Machine Tool	Mrs. I Sowjanya	CO1	Evaluate metrological techniques and tools, including micrometers, sine bars, and limit gauge design, to analyze and solve engineering problems,	Evaluate
				CO2	Apply the knowledge to measure and assess geometric attributes such as straightness, flatness, and roundness using bench centers and talyronds, perform surface roughness measurements , apply thread metrology methods and conduct general geometric tests on machine tools	Apply
				CO3	Understand the constructional features and specifications of machine tools, includinglathes, drilling, boring, milling and grinding machines.	Understand
				CO4	Determine the cutting forces and machining time in lathe, , drilling operations.	Evaluate
				CO5	Applying the principles of indexing for milling machines, demonstrating their ability to synthesize complex machining operations	Apply





**DEPARTMENT OF MECHANICAL ENGINEERING**

**V-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

V SEM	SN O	Code	subject	Name of the faculty	COs	Course Outcomes	Taxonomy
	4	6PE501ME	Automobile Engineering	Dr. P Ravichander	CO1	Understand the diverse components and construction details of automobile engines	Understand
					CO2	Understand the operations of various systems, including the engine lubrication system and cooling system, as well as comprehend the types of ignition systems and diverse batteries utilized in automobiles.	Understand
					CO3	Apply knowledge to analyze the working principles of steering and suspension systems, along with examining the constructional details of automobile wheels and tires.	Apply
					CO4	Comprehend the construction and functioning of the braking system in automobile engines and understand the transmission of power from the engine to wheels through clutch plates and the differential gearbox.	Understand
					CO5	Identify the environmental implications of automobile emissions and strong base for understanding future developments in the automobile industry.	Apply
	5	6HS502HS	Management Economics and Financial Account	Mrs. Brundavani	CO1	Apply economic principles to management decisions and understand the nature & scope of managerial economics, its relationship with other disciplines.	Apply
					CO2	Describe how changes in demand and price affects market, estimate demand and forecasting of demand in the market.	Understand
					CO3	Understanding the basic concepts of accounting, Classify various books of accounts	Understand
					CO4	Analyze and Interpret financial statements by applying ratios	Analyze
					CO5	Apply traditional and modern techniques of capital budgeting in long term investments, to test whether to	Apply
	6	6HS503HS	Effective Technical Communication	Ms. Jayashree	CO1	Handle Technical communication effectively by overcoming barriers of communication.	Remember
					CO2	Use different types of Professional correspondence to	Understand
					CO3	Use different types of business and Interoffice	Analyze
					CO4	Acquire adequate skills to draft reports efficiently.	Evaluate
					CO5	Enhance their skills of information transfer.	Apply
	7	OE	Disaster Mitigation	Ms Jyotsna	CO1	Demonstrate the concepts of Disaster Management, Role of NDMA in Disaster Management	Remembering &
					CO2	Identify different types of disasters, Mitigation measures of each disaster, case studies of disasters	Understanding
					CO3	Explain the disaster management cycle and disaster response, use of technology in disaster mitigation	Understanding
					CO4	Illustrate the acts and policies of disaster management in India	Understanding
					CO5	Explain the concepts of communication and public	Understanding





**DEPARTMENT OF MECHANICAL ENGINEERING**

**V-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

SN O	Code	subject	Name of the faculty	COs	Course Outcomes	Taxonomy
8	OE	Artificial Intelligence	Dr. Shruthi	CO1	Introduction to Artificial Intelligence, its applications and Problem solving techniques. Also the knowledge representation methods, Planning, Expert systems and their algorithms in AI	Understanding
				CO2	Analyzing different searching algorithms and game playing programs to solve given problems.	Analyzing
				CO3	Apply basic principles of AI in solutions that require problem solving, inference, perception, planning, knowledge representation, and learning.	Applying
				CO4	Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, probability, artificial neural networks and other machine learning models.	Evaluating
				CO5	To explore the understanding of agent based AI Planning ,logical based agents and Expert systems	Creating
9	6PC556ME	Metrology and Machine Tool Lab	Mr. Abdul Faal & Dr.P.Prabhuraj	CO1	Use Vernier callipers, height gauges, inside, outside, and depth micrometers to apply measurement principles and techniques.	Apply
				CO2	Make use of the concepts and methods for calculating ovality and roundness errors using dial bore gauges and V-blocks.	Apply
				CO3	Use a sine bar and a bevel protractor to precisely calculate the angles. Using a Tool Maker's Microscope, measure linear and angular dimensions accurately.	Analyze
				CO4	Accurately and successfully apply shaping, drilling, gear cutting, thread cutting, and lathe machine operations to work parts	Apply
				CO5	Use a lathe tool dynamo meter to analyze the cutting force during machining operations.	Analyze
10	6PC557ME	CAD/CAM Lab	Mrs. Shazia Anwar	CO1	Create the models of the components using solid modelling package.	Create
				CO2	Demonstrate proficiency in generating 3D part models from assembly drawings using a solid modeling package.	Understand
				CO3	Understand and effectively apply geometric dimensioning, tolerance representation on part drawings as well apply the conventional practices to indicate dimensional, form, and position tolerances on engineering drawings.	Understand
				CO4	Interpret and calculate limits, suggest suitable fits for mating parts, and detect interference in assemblies.	Understand
				CO5	Compile the simple part programs to perform machining on a CNC machine and to create various machine components by performing different machining operations.	Create





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**V-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

SN O	Code	subject	Name of the faculty	COs	Course Outcomes	Taxonomy
11	6PW551ME	Internship	Mr. Abdul Fazal	CO1	To improve and develop technical abilities.	Apply
				CO2	To put into practice the theoretical knowledge they have learned in their classes.	Apply
				CO3	To acquire practical abilities pertinent to their academic programs.	Apply
				CO4	To acquire knowledge relevant to their academic courses that is industry-specific.	Understand
				CO5	To cooperate and communicate professionally with co-workers, managers, and business associates.	Evaluate
12.0	6MC552	Skill Development Lab -2	Dr. Md Fakhruddin	CO1	Recall & Gain insights into the professional aspects of mechanical engineering.	Remembering
				CO2	Hands-on experience experimenting with tools, equipment, and software used in the industry.	Analysing
				CO3	Collaborate, communicate & Illustrate ideas, and work effectively as part of a team.	Understanding
				CO4	Improve the critical thinking abilities and adapt to the evolving demands of the industry.	Creating
				CO5	Solve complex problems, and make informed decisions.	Applying

Dept. Assessment Coordinator

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**DEPARTMENT OF MECHANICAL ENGINEERING**

**VI SEMESTER - BE CO- PO Matrix FOR A.Y :2023-2024**

	S No	Co de	subject	Faculty Name	CO No.	Course Outcomes	Taxonomy Level
1		PC 413 ME	Machine Design	Dr. M Prasad	CO1	State the function of springs, gears, Bearings, IC Engine parts and theory of bending of members with initial curvature	Remembering
					CO2	Summarize the Materials for springs, Gears, Bearings, IC Engine components , Rope and Chain drives	Understanding
					CO3	Select Various types of Springs ,Bearing, Gear drives and, drive systems for specific applications	Applying
					CO4	Analyze Helical coil springs , leaf springs Gear and Chain drives, IC Engine components for mechanical systems	Analyzing
					CO5	Determine the design procedure for Helical coil springs , leaf springs Gear and Chain drives, IC Engine components for various mechanical systems	Evaluating
2		PC 414 ME	Metal Cutting and Machine Tools	Dr. Prabhuraj	CO1	Explain cutting tool material, chip formation, source of heat distribution, cutting fluids, tool wear in metal cutting operation	Understanding
					CO2	Demonstrate the working principle of machine tool, grinding machine,abrasive, bonds used for grinding and selection of grinding wheel, threading applicationand jig and fixtures in work place.	Understanding
					CO3	Analyse the Tool Geometry and Nomenclature of single point cutting tool by ASA & ORS systems and Geometry of drilling, milling cutters for Optimum Cutting Speeds for maximum production rate and minimum cost in manufacturing industry. analyse the Gear shaping, Gear hobbing, Gear shaving and grinding in manufacturing industry.	Analyzing
					CO4	Make use of knowledge of Mechanics of metal cutting, Merchant 's analysis, Shear angle, Solutions of Merchant and Lee & Shafer in industry,Tool life & Machinability, Machinability index. Taylor's tool life equation in real time application	Applying
					CO5	Apply the knowledge of Drilling, Milling and Boring, Indexing methods , Quick return mechanisms in shaping industry,Broaching, Lapping, Honing, Polishing, Buffing, Super Finishing and Burnishing, Screws and Gear Manufacturing, Tapping, Jigs and Fixtures in work place and UCMP principles.	Applying
3		PC 415 ME	Finite Element Analysis	Mr. G Bhaskar	CO1	Formulating the local stiffness matrix into global stiffness matrix, Summarise the basic elasticity equations, analyse the one dimensional elements using minimum potential energy equation.	Creating
					CO2	Analyse the truss element, frames and beam elements along with transformation of local to global matrices	Analyzing
					CO3	Analyse the two-dimensional by using CST in natural coordinate system, Axi-symmetric bodies and	Analyzing
					CO4	Analyse the two -dimensional four nodel iso-parametric element, the heat transfer in one & two dimensional under the steady and unsteady state conditions and torsional circular shafts.	Analyzing
					CO5	Formulate the mass & stiffness matrices of one dimensional beam elements eigen values and eigen vectors using Langarangian and Hemilton principles	Creating





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## DEPARTMENT OF MECHANICAL ENGINEERING

### VI SEMESTER - BE CO- PO Matrix FOR A.Y :2023-2024

S No	Co de	subject	Faculty Name	CO No.	Course Outcomes	Taxonomy Level
4	PE 522 ME	Production and Operations Management	Mrs. I. Sowjanya	CO1	Understand the different types of production systems and their characteristics, as well as the factors that influence plant location and layout decisions.	Understanding
				CO2	Understand of the principles of work study, including method study and work measurement. Apply standard time calculations, select appropriate methods of rating, and use work sampling to improve work processes.	Understanding
				CO3	Apply various forecasting techniques to predict demand patterns using both qualitative and quantitative methods.	Applying
				CO4	Understand of Materials Requirement Planning (MRP), including its importance, inputs, outputs, and calculations and also gain knowledge of Manufacturing Resource Planning (MRP 2) and Enterprise Resource Planning (ERP)	Understanding
				CO5	Apply the principles of project management to develop network diagrams, differentiate between PERT and CPM, schedule activities using review technique	Applying
5	PE 533 ME	Power Plant Engg.	Dr. MD. Fakhruddin H.N	CO1	Identify the various sources of energy for power generation and explain the working of various sub systems such as coal handling, ash handling in a steam power plant.	Apply(2)
				CO2	Combustion process descriptions and the various sub systems in air and gas circuit, feed water and cooling water circuit and the working of gas turbine power plants.	Understand(1)
				CO3	Descriptions of the working of a hydro power plant & Nuclear power plant	Understand(1)
				CO4	Describe the working of a nuclear power plant and hazard involved	Understand(1)
				CO5	Estimate the cost of power generation and the environmental effects of various power plants.	Evaluate(3)
6	OE 601 CE	Disaster Mitigation	Ms. P. Jyotsna	CO1	Explain the terms and concepts of disaster management	Remembering & Understanding
				CO2	Summarize the categories of disasters and their characteristics, mitigative measures	Understanding
				CO3	Discuss the framework and measures of pre-disaster , during disaster, post- disaster measures	Understanding
				CO4	Interpret the Indian Disaster Management acts and it's framework	Understanding
				CO5	Describe the application of various technologies to disaster management.	Understanding





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### DEPARTMENT OF MECHANICAL ENGINEERING

#### VI SEMESTER - BE CO- PO Matrix FOR A.Y :2023-2024

S No	Co de	subject	Faculty Name	CO No.	Course Outcomes	Taxonomy Level
7	OE61	Principles of Artificial Intelligence	Mrs. Shaziya Jabeen	CO1	Introduction to Artificial Intelligence, its applications and Problem solving techniques. Also the knowledge representation methods, Planning, Expert systems and their algorithms in AI	Understanding
				CO2	Analyzing different searching algorithms and game playing programs to solve given problems.	Analyzing
				CO3	Apply basic principles of AI in solutions that require problem solving, inference, perception, planning, knowledge representation, and learning.	Analyzing
				CO4	Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, probability, artificial neural networks and other machine learning models.	Evaluating
				CO5	To explore the understanding of agent based AI Planning ,logical based agents and Expert systems	Creating
8	PC 458 ME	Metrology and Machine Tools Lab	Mrs. I. Sowjanya / Dr. Prabhuraj	CO1	Identify and use various instruments for external, internal and angular measurements	Applying
				CO2	Apply the principles of optical measurements in measuring the screw .	Applying
				CO3	Identify and use various types of force and temperature measurement instruments/tools.	Applying
				CO4	Apply the knowledge of metal cutting principles to perform various machine tool operations.	Applying
				CO5	Determine Shear angle, cutting forces, temperatures and tool life in metal cutting processes	Evaluating
9	PC 459 ME	Computer Aided Engineering Lab	Mr. G. Bhaskar	CO1	classify different types of beams and truss element to perform static analysis	analyzing
				CO2	classify different types of meshing	analyzing
				CO3	analyze the stress and deformations of axi-symmetric bodies and connecting rod	analyzing
				CO4	predict natural frequencies in case of critical load condition.	Creating
				CO5	simulate coupled analysis using static structural and steady state thermal	analyzing
10	PW 701 ME	Summer Internship	Dr. A. Rajasekhar	CO1	Explain and identify various materials, processes, products and their applications and limitations.	Understand
				CO2	Apply the fundamental and advanced Technical / Engineering knowledge in real industrial situations.	Apply
				CO3	Explain the importance and learn through experience professional ethics, communication and adaptability skills to work in teams to solve real life problems.	Evaluate
				CO4	Explain the social, economic and administrative considerations that influence the working environment of industrial organizations.	Evaluate
				CO5	Explain and sharpen the real time technical / managerial skills required to meet the industry needs.	Understand

Dept. Assessment  
Coordinator

Head of the Department

Mechanical Engineering Department  
 Methodist College of Engg & Tech  
 King Koti, Hyderabad-500 001.





**DEPARTMENT OF MECHANICAL ENGINEERING**

**VII-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

	SN O	Code	subject	Name of the faculty	COs	Course Outcomes	Taxonomy
1		HS104ME	Operations Research	Mr.G Basker	CO1	The students to have the knowledge of Linear Programming Problem in operations Research and would be able to understand the concept and develop the models for different applications.	Create
					CO2	The students to have the knowledge of conversion of Linear Programming Problem into Dual problems in operations Research and would be able to solve the solution for different applications.	Analyze
					CO3	The students to have the knowledge of solving trasportation problems using LPP/OR models and able to analyse the problems associate to job assign in real life scenario	Analyze
					CO4	The students understand the concept Replacement models and theory of game in OR at the end students would able to explain various features and applications of replacement models in real time scenario and explain Game theory in decision making for a conflict.	Understand
					CO5	The students to have the knowledge of Sequencing model, Queuing Theory and Optimum techniques at the end student would able to develop optimum model for job scheduling and waiting line cases.	Apply
2		PC417ME	Refrigeration and Air Conditioning	Dr. M P rasad	CO1	List various types of refrigerants, refrigeration cycles, Psychometric properties and Air Conditioning Systems	Remember
					CO2	Summarize refrigerants CFC and HFC types, refrigeration cycles, Psychometric properties and Air Conditioning Systems	Understand
					CO3	Choose refrigerants, refrigeration cycles, Psychometric properties and Air Conditioning Systems systems based on applications	Apply
					CO4	Analyze various problems on psychometric processes, refrigeration cycles, and Air Conditioning Systems know the construction and application of Psychometric chart	Analyze
					CO5	Design an air conditioning system based on given inside and outside conditions. Evaluate cooling and heating loads in an air-conditioning system	Evaluate
3		PC416ME	Automation in manufacturin	Mrs. I Sowjanya	CO1	Understand the importance of automation in the field of manufacturing.	Understand
					CO2	Apply the various concepts of CAD and Numerical control machines.	Apply
					CO3	Apply the concepts of CAM and CNC machining.	Apply
					CO4	Understand the concepts of Additive Manufacturing Technologies.	Understand
					CO5	Understand the concepts of pneumatics & hydraulics systems and controls, and various elements of Flexible Manufacturing System.	Understand





**DEPARTMENT OF MECHANICAL ENGINEERING**

**VII-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

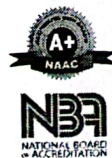
**VII Sem**

4	PE541ME	3D Printing Technology	Mrs Shazia Anwar	CO1	Interpret the features of 3D printing technology, its advantages, disadvantages, its applications and comparison with conventional manufacturing methods.	Understand
				CO2	Illustrate the operating principles, capabilities and limitations of liquid, solid and powder based 3D printing technologies.	Understand
				CO3	Categorize different data formats, softwares used for 3D printing technology and list the errors in STL format.	Analyze
				CO4	Applying the capabilities of 3D printing in different industrial sectors.	Apply
				CO5	Exploring the knowledge of 3D printing technologies for developing innovative applications.	Apply
5	PE520CE	GBT- Green Building Technology	R. Srikanth	CO1	Comprehend core principles of green building and sustainable development.	Understand
				CO2	Apply strategies to minimize environmental impact through site planning.	Apply
				CO3	Implement conservation techniques for water and energy.	Apply
				CO4	Choose materials for construction with low embodied energy and sustainable sourcing.	Apply
				CO5	Apply strategies for improving indoor environmental quality.	Apply
6	OE	Non Conventional Energy Sources	Mr. Ramesh Babu	CO1	List and Compare the various forms of non conventional energy resources and analyze the different Fuel cells with applications of fuel cells	Analyze
				CO2	Explain the solar energy applications and calculations of solar energy	Analyze
				CO3	Analyzing how wind energy can be tapped from the nature and its calculations	Analyze
				CO4	Illustrate the concepts of Geothermal, Wave, Tidal energy & OTEC	Understand
				CO5	Outline the Biogas & Biomass, its mechanism of production of energy and its applications	Understand
8	PE551ME	Non Destructive Testing	Dr. Md. Fakruddin	CO1	Clear understanding of liquid penetrant inspection and magnetic particle inspection.	Creating
				CO2	View and interpret radiographs, utilize the various principles of radiography for different components of different shapes.	Understanding
				CO3	Knowledge of acoustic emission for NDT and the instrumentation used for NDT.	Analysing
				CO4	Ability to analyze quality control and prepare a technical report.	Identifying
				CO5	Knowledge of latest research, developments and trends in NDT.	Evaluating





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**DEPARTMENT OF MECHANICAL ENGINEERING**

**VII-SEMESTER - BE CO-PO Matrix for ACADEMIC YEAR 2023-24**

	9	PC460ME	CAM and Automation Lab	Mrs. Sowjanya	CO1	Develop tool path simulations for a given step turning and face turning scenario using computer-aided design (CAD) software.	Apply
					CO2	Apply knowledge of drilling depths and lathe controls to execute a combined drilling and grooving operation.	Apply
					CO3	Generate tool path simulations for a given scenario involving multiple machining operations using CNC programming.	Apply
					CO4	Generate a robot program for pick & place operations using appropriate programming tools and software.	Apply
					CO5	Attain the working knowledge in simulation of Pneumatic Hydraulic and PLC simulation	Understand
	10	PW702ME	Project Work I	Dr. Udayakumar	CO1	Adapt the attitude of writing reviews on the literature	Create
					CO2	Develop practical & professional skills	Apply
					CO3	Apply the tools and technicals of documentations	Apply
					CO4	Make use of the Team work	Apply
					CO5	Develop to the industrial practice and Research Practices, Innovative and enterpranuer ideas	Apply

  
 Dept. Assessment Coordinator

  
 Head of the Department  
**H.O.D.**

**Mechanical Engineering Department**  
**Methodist College of Engg & Tech**  
 King Koti, Hyderabad-500 001.





**DEPARTMENT OF MECHANICAL ENGINEERING**

**VIII SEMESTER - BE CO-PO Matrix FOR A.Y :2023-2024**

	S N o	Code	sub ject	Name of the faculty	CO No.	Course Outcomes	Taxonomy Level
VIII SEM	1	PE 813 ME	Power Plant Engineering	G. Bhaskar	CO1	Demonstrate the working principle, steam power plant layout, types of coals, coal & ash handling system.	Understanding
					CO2	Illustrate feeding and burning of coal, comprehend the basic working principle of steam power plant and gas turbine power plant	Understanding
					CO3	Identify types of dams & spillways, working principle of hydro power plant, hydrology	Applying
					CO4	Explain the working principle of nuclear fission, types of power plants & reactors	Understanding
					CO5	solve the power plant economy factors, load factors, illustrate the methods to control of pollutants emitted by fossile fuel used in power plants and its safety aspects of power plant operation	Applying
	2	PE823ME	Entrepreneursip Development	Dr. Prabhu Raj	CO1	Explain the Indian industrial environment, opportunities and challenges of women entrepreneur in enterprise, first-generation entrepreneur, project financing in india and Motivational aspects.	Understanding
					CO2	Identify the characteristics of entrepreneurs, importance of linkage among small- medium and heavy industry, collaborative interaction for technology development and Human aspects of project management	Applying
					CO3	Demonstrate the principle of project formulation, market demand, Financial, profitability analysis, Project Management during construction phase in organization and behavioral aspects of entrepreneurs.	Analyzing
					CO4	Evaluate the technical feasibility of a project management, conception and evaluation of ideas and their sources, CPM & PERT techniques and explain the tax assessment burden.	Evaluating
					CO5	Make use of Knowledge of Personality determinants, attributes, Leadership concepts and models, values and attitudes and motivation aspects and Time Management principles.	Applying
	3	OE801CE	RSE- Road Safety Engineering	D. BHARATH NAIK	CO1	Explain scenario of road safety in world, accident characteristics, causes, investigation techniques, data collection, analysis and preventive measures	Understanding
					CO2	Explain Traffic Engineering studies, Characteristics, management measures and their influence on road safety	Understanding
					CO3	Explain road safety in planning, designing, equipments used for construction during construction, at construction site and devices used for protection	Understanding
					CO4	Explain Functioning and factors affecting the traffic Signals, road signs and pavement markings	Understanding
					CO5	Expalin road safety audit process, strategies and ITS	Understanding



4	PW703ME	Project Work- II	Dr. MD. FAKHRUDDIN H.N	CO1	Demonstrate the ability to synthesize the knowledge and skills acquired in the academic program to the real-world problems	Understanding
				CO2	Apply the knowledge and skills acquired in the academic program to the real-world problems	Applying
				CO3	Evaluate different solutions based on economic and technical feasibility	Evaluating
				CO4	Effectively plan a project and confidently perform all aspects of project management	Applying
				CO5	Demonstrate effective written and oral communication skills	Understanding
5	OE701EE	Non Conventional Energy Sources	Mr.Jarapala Ramesh Babu	CO1	List and Compare the various forms of non conventional energy resources and analyze the different Fuel cells with applications of fuel cells	Analyze
				CO2	Explain the solar energy applications and calculations of solar energy	Analyze
				CO3	Analyzing how wind energy can be tapped from the nature and its calculations	Analyze
				CO4	Illustrate the concepts of Geothermal ,Wave, Tidal energy & OTEC	Understand
				CO5	Outline the Biogas & Biomass, its mechanism of production of energy and its applications	Understand

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**DEPARTMENT OF BUSINESS MANAGEMENT**  
**ACADEMIC YEAR 2023-24 ODD SEMESTER**  
**COURSE OUTCOMES SUMMARY**  
**MBA I SEMESTER - Autonomous**

S.No	Course Code	Course Name	Course Instructor	CO No	Course Outcome	Taxonomy Level
1	MB101C	Management & Organizational Behaviour	Mrs.A.Swathi	CO1	To understand the evolution and principles of management through classical and modern approaches.	Understand
				CO2	decision-making skills under different scenarios.	Apply
				CO3	personality traits, perception, and motivation theories.	Analyze
				CO4	styles for effective team-building and conflict resolution.	Analyze
				CO5	including stress management, change management, and organizational culture.	Evaluate
2	MB102C	Accounting for Management	Mrs.Roubena Sultana	CO1	To Understand the Nature and Scope of Financial Accounting	Understand
				CO2	To Determine the Trading, Profit & Loss A/c and Balance Sheet	Determine
				CO3	To Analyze the Financial Statements – Classify the Ratios	Analyze
				CO4	To Categorize the Cash Flow Statement – the utility of Cash Flow Statements	Categorise
				CO5	To Classify different Costs – Fixed & Variable Costs – Break –Even Point & P/V Ratio	Classify
3	MB103C	Marketing Management	Dr.S.Sujatha	CO1	Evaluate the relevance of marketing concepts impact on environmental change while designing marketing plans, strategies and	Evaluate
				CO2	Develop marketing strategies based on segmentation, target marketing and positioning by examining consumer behaviour.	Develop
				CO3	Ability to summarize the unique marketing mixes and selling propositions for specific product offerings and pricing objectives.	Understand
				CO4	Develop and apply knowledge to create integrated marketing communication strategies and distribution strategies.	Apply
				CO5	Ability to analyse marketing control techniques and can understand strategies related to rural, global and services marketing areas.	Analyze



4	MB104C	Statistics for Management	Mrs.G.Madhavi	CO1	Understand the concept and applications of probability in the management	Understand
				CO2	To classify different types of random variables and probability distributions	Classify
				CO3	Understand the concept of sampling theory and develop the solutions of problems in management	Understand
				CO4	Apply small sample tests and the ANOVA test for specified population problems	Apply
				CO5	To determine the coefficient of correlation and regression, use the concept of correlation and regression analysis	Examine
5	MB105C	Business Law & Ethics	Mrs.G.Madhavi	CO1	Demonstrate an understanding of the legal aspects of business.	Demonstrate
				CO2	Apply basic legal knowledge to business transactions.	Apply
				CO3	Examine the importance of the legal system with respect to business.	Examine
				CO4	Integrate the concept of ethics & value based considerations in business.	Integrate
				CO5	To Understand the role of managers in the firms	Estimate
6	MB106C	IT Applications for Management	Mr.D.Srinu	CO1	To summarize the concepts and classify the categories of Information systems.	Understand
				CO2	To apply the technology infrastructure of computer hardware & software.	Apply
				CO3	To apply the basic knowledge of database connectivity.	Apply
				CO4	To apply different types of inter-organizational systems.	Apply
				CO5	To take measures to solve the problems relate to information security and laws.	Apply
7	MB107E.a	Financial Markets & Services	Mrs.A.Brundavani	CO1	To understand the structure of Indian financial m	Understand
				CO2	To analyze concepts and innovations in financial services.	Analyze
				CO3	To evaluate merchant banking roles and SEBI regulations.	Evaluate
				CO4	To assess leasing and hire-purchasing mechanisms.	Evaluate
				CO5	To examine factoring, bill discounting, and credit rating services.	Analyze



8	MB107E.b	Managerial Communication	Mr.C.Shyam Sunder	CO1	To acquire the requisite knowledge about the fundamentals of communication skills	Understand
				CO2	To study how to write business letters, reports and other business correspondence	Understand
				CO3	viz Presentation Skills, Group Discussions and Negotiation	Apply
				CO4	To acquire knowledge about various types of interviews	Create
				CO5	etiquettes in order to handle day-to-day managerial responsibilities	Analyze

Assessment Coordinator

HOD  
HEAD

Department of Business Management,  
Methodist College of Engineering & Technology,  
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**DEPARTMENT OF BUSINESS MANAGEMENT**  
**ACADEMIC YEAR 2023-24 ODD SEMESTER**  
**COURSE OUTCOMES SUMMARY**  
**MBA III SEMESTER - Autonomous**

S.No	Course Code	Course Name	Course Instructor	CO No	Course Outcome	Taxonomy Level
1	MB301	Operations Management	Mrs.G.Shiba Rani	CO1	To understand features of operations & production, and types of processes	Understand
				CO2	sequencing, capacity & maintenance management	Understand
				CO3	To analyze work study techniques & service management	Analyze
				CO4	To understand need & importance of material in manufacturing firms	Understand
				CO5	To analyze stores functions & inventory models	Analyze
2	MB302	E-Business	Mrs.G.Shiba Rani	CO1	To understand E-business basic development and contribution to society	Understand
				CO2	Technologies in E-business, Social consequences	Classify
				CO3	Understand the concept of Digital marketing, CRM, Tools	Understand
				CO4	To attain knowledge of E-business & operations management	Demonstrate
				CO5	To understand the components of distribution system, E-payment	Understand
3	MB303	Entrepreneurship Development	Mrs.A.Swathi	CO1	Understand the foundational concepts of entrepreneurship, including its role in	Understand
				CO2	Analyze the steps involved in identifying oppo	Analyze
				CO3	Apply knowledge to develop effective business plans and strategies for startups.	Apply
				CO4	Evaluate different financing options and growth strategies for entrepreneurial	Evaluate
				CO5	Understand the social responsibilities and ethical dimensions of entrepreneurship.	Understand
4	MB304	Global Business Management	Dr.S.Sujatha	CO1	To Understand higher level skill in Global business	Understand
				CO2	To Analyse changes towards Global business environment	Analyze
				CO3	To Understand problems of global marketing	Understand
				CO4	To Apply strategies of global market entry	Apply
				CO5	To attain the knowledge international industries & markets	Understand



5	MB305E-F-I	Investment Management	Mrs.Roubena Sultana	CO1	Financial Assets – Investment Decision Process	Understand
				CO2	To Analyze the Fixed Income Securities and their Valuation and Management	Analyze
				CO3	To Identify the Common Stocks and to Construct the Security Market Indexes	Identify
				CO4	To Analyze the Concept of Portfolio – and Construct the minimum Risk Portfolio	Analyze
				CO5	To Evaluate Performance of Mutual Funds – Problems & Prospects in India	Evaluate
6	MB305E-F-II	International Finance	Mrs.A.Brdavani	CO1	To understand international financial systems and institutions.	Understand
				CO2	To analyze foreign exchange markets and exchange rates.	Analyze
				CO3	To evaluate exchange rate theories and risk management.	Evaluate
				CO4	To assess multinational corporate financial decisions.	Evaluate
				CO5	To examine international taxation and transfer pricing.	Analyze
7	MB305E-HR-I	Industrial Relations & Labour Laws	Mrs.G.Madhavi	CO1	To Understand Industrial relations & Labour laws	Understand
				CO2	To Analyse Industrial disputes & resolutions	Analyze
				CO3	To Understand trade unionism & legal framework	Understand
				CO4	To Summarise the labour legislation in India	Analyze
				CO5	To Summarise the important provisions of wage legislation & women	Analyze
8	MB305E-HR-II	Organisation Development	Mrs.A.Swathi	CO1	Understand the fundamental concepts, processes, and importance of organization	Understand
				CO2	Analyze organizational challenges using diagnostic tools and methods.	Analyze
				CO3	Apply various OD interventions to manage change effectively.	Apply
				CO4	Evaluate the role of leadership in facilitating organizational change and development.	Evaluate
				CO5	Explore emerging trends and innovations in organization development practices.	Create

Assessment Coordinator

Department of Business Management,  
Methodist College of Engineering & Technology,  
Abids, Hyderabad-500 001 (I.S.) India





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**DEPARTMENT OF BUSINESS MANAGEMENT**  
**ACADEMIC YEAR 2023-24 EVEN SEMESTER**  
**COURSE OUTCOMES SUMMARY**  
**MBA II SEMESTER - Autonomous**

S.No	Course Code	Course Name	Course Instructor	CO No	Course Outcome	Taxonomy Level
1	MB201C	Human Resource Management	Mrs.A.Swathi	CO1	Understand the evolution, functions, and strategic alignment of HRM with corporate	Understand
				CO2	Develop the ability to design and evaluate jobs, workforce planning, and recruitment strategies	Apply
				CO3	Gain insights into training methodologies and career development frameworks for workforce	Analyze
				CO4	Learn to implement HR systems that enhance employee engagement, grievance redressal, and	Apply
				CO5	Explore contemporary HR practices like diversity, inclusivity, HR analytics, and global	Evaluate
2	MB202C	Financial Mangement	Mrs.A.Brndavani	CO1	To understand the finance function, risk-return trade-off, and time value of money.	Understand
				CO2	To evaluate the investment decision process and capital budgeting under risk.	Evaluate
				CO3	To analyze financing decisions, capital structure, and cost of capital.	Analyze
				CO4	To assess current assets management and dividend decision theories.	Evaluate
				CO5	To examine corporate restructuring, mergers, and corporate governance.	Analyze
3	MB203C	Operations Research	Mrs.I.Sowjanya	CO1	To understand definition, scope, objectives, phases, models & limitations of operations	Understand
				CO2	To apply the primal and dual relationships by adapting to other models.	Apply
				CO3	To apply different application areas of operations research like transportation problem,	Apply
				CO4	To identify the resources project and generate a plan and work schedule.	Analyze
				CO5	To analyze the usage of game theory, Queuing theory and simulation for solving business	Analyze
4	MB204C	Total Quality Management	Mrs.G.Shiba Rani	CO1	To understand the fundamental principles of TQM	Understand
				CO2	To choose appropriate TQM Tools for improving processes & quality	Choose
				CO3	To choose appropriate TQM Technique for improving processes & quality	Choose
				CO4	To understand concept of six sigma & apply six sigma problem solving tools	Understand
				CO5	To construct TQM in service sectors	Construct



5	MB205C	Business Research Methods	Mrs.G.Madhavi	CO1	To categorise the methods involved in analyzing the business outcomes .	Analyze
				CO2	To demonstrate the ability to collect data from various sources for the purposes of research.	Demonstrate
				CO3	To Classify the quality of data collected by analysis , scaling and probability	Classify
				CO4	To be able to evaluate by cause and effect the correlation and a mathematical expression by	Evaluate
				CO5	To be able to apply the Business research Methods for the solution of problems in	Apply
6	MB206C	Economics For Managers	Mrs.Roubena Sultana	CO1	To Understand the role of managers in the firms	Understand
				CO2	Understand the demand & supply conditions of the firm	Analyze
				CO3	To Interpret production function, economies & diseconomies of scale, cost analysis	Construct
				CO4	To understand market structure & pricing practices	Apply
				CO5	Understand the concept of National income, Inflation & its effect on trade	Understand
7	MB207E.a	Innovation Management	Mr.C.Shyam Sunder	CO1	To gain the conceptual clarity on the basic concepts of R & D	Understand
				CO2	To define budget allocations for R & D projects in organization.	Remember
				CO3	To understand effective R & D Management and evaluating progress	Understand
				CO4	To explain innovation management and importance of innovation	Understand
				CO5	To learn about innovation within the organization and impact of IT on innovation	Understand
8	MB207E.b	Customer Relationship Management	Dr.S.Sujatha	CO1	It focuses on the holistic understanding of customer relationship management and gives a	Understand
				CO2	To Analyse, acquaint, understand and describe a customer relationship management	Analyze
				CO3	To provide real-time insights into the successfully implemented CRM in various	Analyze
				CO4	To Create Awareness in implementation of CRM by understanding the end users and to	Remember
				CO5	To study how CRM allowed for decision making, evolved relationships to a higher level	Understand

Assessment Coordinator

HOD  
HEAD

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Abids, Hyderabad-500 001 ( I.S. ) India





Estd : 2008

**METHODIST****COLLEGE OF ENGINEERING & TECHNOLOGY****Accredited by NAAC with A+ and NBA**

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ज्ञान-विज्ञान विमुक्तये

**DEPARTMENT OF BUSINESS MANAGEMENT****ACADEMIC YEAR 2023-24 EVEN SEMESTER****COURSE OUTCOMES SUMMARY****MBA IV SEMESTER - Autonomous**

S.No	Course Code	Course Name	Course Instructor	CO No	Course Outcome	Taxonomy Level
1	MB401C	Strategic Management	Mrs.G.Madhavi	CO1	concept of Strategy & Strategic Management Process.	Formulate
				CO2	Formulate the Vision, Mission statements and define goals, objectives for organizations.	Analyse
				CO3	Analyze role of environment for strategy formulation.	Determine
				CO4	Determine the alternatives for strategy formulation & sustenance.	Identify
				CO5	Identify strategy implementation procedures coupled with corporate ethics.	Understand
2	MB402C	Business Intelligence	Mrs.G.Madhavi	CO1	To Understand the History, Evolution, Styles & Benefits of Business Intelligence	Classify
				CO2	To Classify the Data Warehousing and Data Mining Approaches and Applications	Compare
				CO3	Measurement (BPM) and Business Intelligence	Classify
				CO4	To Classify Business Analytics and Data Visualization	Summarize
				CO5	To Summarize Business Intelligence Implementation	Understand
3	MB403C	Supply Chain Management	Mrs.G.Shiba Rani	CO1	Understand basic and fundamentals of supply chain management	Summarize
				CO2	To summarize logistics management & Inventory management	Understand
				CO3	Understand the role of Transportation & Warehousing	Analyze
				CO4	Analyze role of Information technology in SCM	Understand
				CO5	Understand key operation aspects like Distributors, HR in Supply Chain	Understand
4	MB404C-F-I	Financial Risk Management	Mrs.Roubena Sultana	CO1	Illustrate Risk Management Process – pre-requisites	Understand
				CO2	To Construct the Value at Risk (VaR) and Cash Flow at Risk	Examine
				CO3	Management – Forwards and Future Contracts	Identify
				CO4	To Compare the different types of Swaps – Interest Rate Swaps & Currency Swaps	Evaluate
				CO5	To Apply the Techniques and Tools of Risk Management – Options on Stock Indices	Apply



5	MB404C-F-II	Banking & Insurance	Mrs. Roubena Sultana	CO1	To understand the structure of banking & insurance business in India.	Understand
				CO2	To examine the products & services in Banking & Insurance.	Examine
				CO3	To identify the regulation & innovations in the banking system.	Identify
				CO4	To evaluate the potential of Insurance business in India.	Evaluate
				CO5	advanced banking and insurance services to the customers.	Propose
6	MB404C-HR-I	Leadership & Change Management	Mr.C.Shyam Sunder	CO1	To understand the basic concepts of leadership and personality types.	Understanding
				CO2	To acquire knowledge and understanding of different leadership styles and models.	Understanding
				CO3	To define various change process models for organizational change.	Remembering
				CO4	To familiarize with the drivers, methods and model of change.	Understanding
				CO5	To define various methods and models of change management.	Remembering
7	MB404C-HR-II	Performance Management	Mrs.A.Swathi	CO1	Understand the scope, process, and importance of performance management in organizations.	Understand
				CO2	Apply various performance appraisal methods and tools for effective employee evaluation.	Apply
				CO3	Analyze performance metrics to set benchmarks and evaluate organizational success.	Analyze
				CO4	Develop competency frameworks and link performance to compensation strategies.	Create
				CO5	Evaluate various performance management models and their application in achieving organizational goals.	Evaluate

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