METHODIST
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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Faculty Teaching Methodologies Summary AY:2023-24

I SEM AY:2023-24

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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Faculty Teaching Methodologies Summary AY:2023-24

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 Substractor ,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 Microprocessor	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 Microprocessor 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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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	Applyinging
				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	Applyinging
				3PC405CS.3	Applies and executes the OS system call programs, process synchronization ,page replacement, directory and disk scheduling algorithms	Applyinging
				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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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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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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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 recruting 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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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 dection	Apply
				3ES551CS.5	Comapre the different DFT,DCT and DWT techniques	Apply

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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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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(ETCE)	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.	Applyinging
				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.	Applyinging
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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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

	OE701ME	OE -II (Start Up Entrepreneurship)	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 entrpreneurship, 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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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	Underastand 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 safty audit	Understanding
				OE802CE.4	Demonstrate the applications of road signs and markings	Understanding
				OE802CE.5	Illustrate the traffic systems from road safty 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.	Applyinging
				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	Underatanding
				PW861CS.5	Communicate effectively by comprehending, documenting, making effective presentation and exchanging clear instructions	Evaluating

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