



Dr D Y Patil Pratishthan's
Dr. D.Y. Patil Institute of Engineering, Management and Research, Akurdi, Pune

Course Outcomes

Syllabus: BE_Sem-I(2019 Pattern)

Department : Computer Engineering

Subject:	Design and Analysis of Algorithms	Subject Code:	410241
CO1	401.1	Formulate the problem	
CO2	401.2	Analyze the asymptotic performance of algorithms	
CO3	401.3	Decide and apply algorithmic strategies to solve given problem	
CO4	401.4	Find optimal solution by applying various methods	
CO5	401.5	Analyze and Apply Scheduling and Sorting Algorithms.	
CO6	401.6	Solve problems for multi-core or distributed or concurrent environments	

Subject:	Machine Learning	Subject Code:	410242
CO1	402.1	Identify the needs and challenges of machine learning for real time applications.	
CO2	402.2	Apply various data pre-processing techniques to simplify and speed up machine learning algorithms.	
CO3	402.3	Select and apply appropriately supervised machine learning algorithms for real time applications.	
CO4	402.4	Implement variants of multi-class classifier and measure its performance.	
CO5	402.5	Compare and contrast different clustering algorithms.	
CO6	402.6	Design a neural network for solving engineering problems	



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Subject:	Blockchain Technology	Subject Code:	410243
CO1	403.1	Interpret the fundamentals and basic concepts in Blockchain	
CO2	403.2	Compare the working of different blockchain platforms	
CO3	403.3	Use Crypto wallet for cryptocurrency based transactions	
CO4	403.4	Analyze the importance of blockchain in finding the solution to the real-world problems.	
CO5	403.5	Illustrate the Ethereum public block chain platform	
CO6	403.6	Identify relative application where block chain technology can be effectively used and implemented.	

Subject:	Elective III : Cyber Security and Digital Forensics	Subject Code:	410244(C)
CO1	404C.1	Analyze threats in order to protect or defend it in cyberspace from cyber-attacks.	
CO2	404C.2	Build appropriate security solutions against cyber-attacks.	
CO3	404C.3	Underline the need of digital forensic and role of digital evidences.	
CO4	404C.4	Explain rules and types of evidence collection	
CO5	404C.5	Analyze, validate and process crime scenes	



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CO6	404C.6	Identify the methods to generate legal evidence and supporting investigation reports
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Subject:	Elective III : Object oriented Modeling and Design	Subject Code:	410244(D)
CO1	404D.1	Describe the concepts of object-oriented and basic class modelling.	
CO2	404D.2	Draw class diagrams, sequence diagrams and interaction diagrams to solve problems.	
CO3	404D.3	Choose and apply a befitting design pattern for the given problem.	
CO4	404D.4	To Analyze applications, architectural Styles & software control strategies.	
CO5	404D.5	To develop Class design Models & choose Legacy Systems.	
CO6	404D.6	To Understand Design Patterns.	

Subject:	Elective IV : Mobile Computing	Subject Code:	410245(C)
CO1	405C.1	Develop a strong grounding in the fundamentals of mobile Networks	
CO2	405C.2	Apply knowledge in MAC, Network, and Transport Layer protocols of Wireless Network	
CO3	405C.3	Illustrate Global System for Mobile Communications	
CO4	405C.4	Use the 3G/4G technology based network with bandwidth capacity	



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		planning, VLR and HLR identification algorithms
CO5	405C.5	Classify network and transport layer of mobile communication
CO6	405C.6	Design & development of various wireless network protocols using simulation tools

Subject:	Elective IV : Software Testing and Quality Assurance	Subject Code:	410245(D)
CO1	405D.1	Describe fundamental concepts in software testing such as manual testing, automation testing and software quality assurance.	
CO2	405D.2	Design and Develop project test plan, design test cases, test data, and conduct test operations.	
CO3	405D.3	Apply recent automation tool for various software testing for testing software.	
CO4	405D.4	Apply different approaches of quality management, assurance, and quality standard to software system.	
CO5	405D.5	Apply and analyze effectiveness Software Quality Tools.	
CO6	405D.6	Apply tools necessary for efficient testing framework.	

Subject:	Laboratory Practice III	Subject Code:	410246
CO1	406.1	Apply preprocessing techniques on datasets.	
CO2	406.2	Implement and evaluate linear regression and random forest regression models.	



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CO3	406.3	Apply and evaluate classification and clustering techniques.
CO4	406.4	Analyze performance of an algorithm
CO5	406.5	Implement an algorithm that follows one of the following algorithm design strategies: divide and conquer, greedy, dynamic programming, backtracking, branch and bound.
CO6	406.6	Interpret the basic concepts in Blockchain technology and its applications

Subject:	Laboratory Practice IV	Subject Code:	410247
CO1	407.1	Apply android application development for solving real life problems	
CO2	407.2	Design and develop system using various multimedia components.	
CO3	407.3	Identify various vulnerabilities and demonstrate using various tools.	
CO4	407.4	Apply information retrieval tools for natural language processing	
CO5	407.5	Develop an application using open source GPU programming languages	
CO6	407.6	Apply software testing tools to perform automated testing	

Subject:	Project Work Stage I	Subject Code:	410248
CO1	408.1	Solve real life problems by applying knowledge.	



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CO2	408.2	Analyze alternative approaches, apply and use most appropriate one for feasible solution.
CO3	408.3	Write precise reports and technical documents in a nutshell.
CO4	408.4	Participate effectively in multi-disciplinary and heterogeneous teams exhibiting team work
CO5	408.5	Inter-personal relationships, conflict management and leadership quality.