	Dr D Y Patil Pratishthan's **Dr. D.Y. Patil Institute of Engineering, Management and Research, Akurdi, Pune**
Course Outcomes	
Syllabus: TE_Sem-I(2019 Pattern)	
Department : Computer Engineering	

Subject:	**Database Management Systems**	**Subject Code:**	**310241**
CO1	301.1	Analyze and design Database Management System using ER model	
CO2	301.2	Implement database queries using database languages	
CO3	301.3	Normalize the database design using normal forms	
CO4	301.4	Apply Transaction Management concepts in real-time situations	
CO5	301.5	Use NoSQL databases for processing unstructured data	
CO6	301.6	Differentiate between Complex Data Types and analyze the use of appropriate data types	

Subject:	**Theory of Computation**	**Subject Code:**	**310242**
CO1	302.1	Understand formal language, translation logic, essentials of translation, alphabets, language representation and apply it to design Finite Automata and its variants	
CO2	302.2	Construct regular expression to present regular language and understand pumping lemma for RE	
CO3	302.3	Design Context Free Grammars and learn to simplify the grammar	
CO4	302.4	Construct Pushdown Automaton model for the Context Free Language	
CO5	302.5	Devise Turing Machine for the different requirements outlined by theoretical computer science	

CO6	302.6	Analyze different classes of problems, and study concepts of NP completeness

Subject:	**Systems Programming and Operating System**	**Subject Code:**	**310243**
CO1	303.1	Analyze and synthesize basic System Software and its functionality.	
CO2	303.2	Identify suitable data structures and Design & Implement various System Software	
CO3	303.3	Compare different loading schemes and analyze the performance of linker and loader	
CO4	303.4	Implement and Analyze the performance of process scheduling algorithms	
CO5	303.5	Identify the mechanism to deal with deadlock and concurrency issues	
CO6	303.6	Demonstrate memory organization and memory management policies	

Subject:	**Computer Networks and Security**	**Subject Code:**	**310244**
CO1	304.1	Interpret fundamental concepts of Computer Networks, architectures, protocols and technologies	
CO2	304.2	Demonstrate the working and functions of data link layer for flow and error control	
CO3	304.3	Analyze the working of different routing protocols and mechanisms for transmission of data	

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CO4	304.4	Implement client-server applications using sockets
CO5	304.5	Analyze role of application layer with its protocols, client-server architectures.
CO6	304.6	Interpret the basics of Network Security for secured communication

Subject:	**Elective I:Internet of Things and Embedded Systems**	**Subject Code:**	**310245(A)**
CO1	305A.1	Understand the fundamentals and need of Embedded Systems for the Internet of Things	
CO2	305A.2	Apply IoT enabling technologies for developing IoT systems	
CO3	305A.3	Apply design methodology for designing and implementing IoT applications	
CO4	305A.4	Analyze IoT protocols for making IoT devices communication	
CO5	305A.5	Design cloud based IoT systems	
CO6	305A.6	Design and Develop secured IoT applications	

Subject:	**Elective I:Software Project Management**	**Subject Code:**	**310245(D)**
CO1	305D.1	Comprehend Project Management Concepts	
CO2	305D.2	Use various tools of Software Project Management	

CO3	305D.3	CO3: Schedule various activities in software projects
CO4	305D.4	Track a project and manage changes
CO5	305D.5	Apply Agile Project Management
CO6	305D.6	Analyze staffing process for team building and decision making in Software Projects and Management

Subject:	**Database Management Systems Laboratory**	**Subject Code:**	**310246**
CO1	306.1	Design E-R Model for given requirements and convert the same into database tables	
CO2	306.2	Design schema in appropriate normal form considering actual requirements	
CO3	306.3	Implement SQL queries for given requirements, using different SQL concepts	
CO4	306.4	Implement PL/SQL Code block for given requirements	
CO5	306.5	Implement NoSQL queries using MongoDB	
CO6	306.6	Design and develop application considering actual requirements and using database concepts	

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Course Outcomes

Syllabus: TE_Sem-I(2019 Pattern)

Department : Computer Engineering

Subject:	**Computer Networks and Security Laboratory**		**Subject Code:**	**310247**
CO1	307.1	Summarize & demonstrate the layered protocol model with identification of the requirements for a given organizational structure		
CO2	307.2	Interpret and apply the logical link control design issues		
CO3	307.3	Describe, analyze and evaluate the media access contention		
CO4	307.4	Evaluate the assignment of IP addresses to the organizations		

Subject:	**Laboratory Practice I**		**Subject Code:**	**310248**
CO1	308.1	Implement language translators.		
CO2	308.2	Use tools like LEX and YACC.		
CO3	308.3	Implement internals and functionalities of Operating System.		
CO4	308.4	Apply Software Project Management tools.		
CO5	308.5	Implement software project planning and scheduling.		

Subject:	**Seminar and Technical Communication**		**Subject Code:**	**310249**
CO1	309.1	Analyze a latest topic of professional interest.		

CO2	309.2	Enhance technical writing skills.
CO3	309.3	Identify an engineering problem, analyze it and propose a work plan to solve it.
CO4	309.4	Communicate with professional technical presentation skills.