



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### B. TECH. 5<sup>TH</sup> SEMESTER

#### LEARNING MANAGEMENT SYSTEM (LMS)

S. N.	NAME OF SUBJECT	CO'S	NOTES LINK
1	DATABASE SYSTEM (BTCOC501)	<b>CO1:</b> Understand the fundamentals of database systems, data modelling using the ER model, and the concepts of database architecture and design.	<a href="#">VIEW</a>
		<b>CO2:</b> Apply relational algebra and relational calculus to manipulate and query relational databases, and their computational capabilities.	<a href="#">VIEW</a>
		<b>CO3:</b> Demonstrate proficiency in using SQL for database definition, manipulation, and querying, including advanced concepts like joins, transactions, and triggers.	<a href="#">VIEW</a>
		<b>CO4:</b> Apply relational database design principles, normalization, and file organization techniques, and indexing and hashing methods for efficient data retrieval.	<a href="#">VIEW</a>
		<b>CO5:</b> Analyze transaction concepts and ACID properties, and <i>apply</i> concurrency control and recovery techniques to ensure database consistency.	<a href="#">VIEW</a>
2	THEORY OF COMPUTATION (BTCOC502)	<b>CO1:</b> Understand the concepts of deterministic and non-deterministic finite automata (DFA, NFA), Moore and Mealy machines, and their inter-conversions	<a href="#">VIEW</a>
		<b>CO2:</b> Remember and Understand the definition of context-free grammars (CFG), production rules, and ambiguity in grammar, and analyze and simplify CFGs by removing ambiguities.	<a href="#">VIEW</a>
		<b>CO3:</b> Understand context-free languages (CFL), regular grammar definitions, apply the conversion between left-linear and right-linear grammars and their relationship to finite automata.	<a href="#">VIEW</a>
		<b>CO4:</b> Understand and apply the concepts of pushdown automata (PDA), both deterministic (DPDA) and non-deterministic (NPDA), and analyze the relative powers of DPDA and NPDA.	<a href="#">VIEW</a>
		<b>CO5:</b> Understand the concept of Turing machines, and illustrate the implications of undecidability and	<a href="#">VIEW</a>



Amar Sewa Mandal's

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President: Dr. (Smt.) Suhasini Wanjari      Secretary: Adv. Abhijit G. Wanjari      Treasurer: Dr. Smeeta Wanjari      Principal: Dr. Salim Chavan

		unsolvable problems.	
3	SOFTWARE ENGINEERING (BTCOC503)	<b>CO1:</b> Understand and analyze software engineering ethics, process models, and managing change in software development.	<a href="#">VIEW</a>
		<b>CO2:</b> Apply agile methodologies, including Extreme Programming, and evaluate the processes of requirements engineering.	<a href="#">VIEW</a>
		<b>CO3:</b> Understand and apply system modeling techniques and evaluate architectural design decisions and patterns.	<a href="#">VIEW</a>
		<b>CO4:</b> Apply object-oriented design using UML, evaluate design patterns, and analyze implementation issues.	<a href="#">VIEW</a>
		<b>CO5:</b> Understand and apply software testing techniques and evaluate dependability properties like safety, security, and reliability.	<a href="#">VIEW</a>
4	HUMAN COMPUTER INTERACTION (BTCOE504A)	<b>CO1:</b> Understand the basic concepts of HCI, and analyze the role of computer devices and interaction models in HCI.	<a href="#">VIEW</a>
		<b>CO2:</b> Apply interaction design principles, screen design, and layout, and evaluate design processes, usability, and iterative prototyping in the software life cycle.	<a href="#">VIEW</a>
		<b>CO3:</b> Understand and apply techniques for evaluating user interfaces through expert analysis and user participation.	<a href="#">VIEW</a>
		<b>CO4:</b> Understand and analyze cognitive, communication, and collaboration models in HCI, including goal/task hierarchies and group working dynamics.	<a href="#">VIEW</a>
		<b>CO5:</b> Apply groupware systems, computer-mediated communication, and ubiquitous computing principles, and with multimedia concepts for interactive environments.	<a href="#">VIEW</a>
5	BUSINESS COMMUNICATION (BTHM505B)	<b>CO1:</b> Understand and explain key concepts of communication and communicative competence in various contexts.	<a href="#">VIEW</a>
		<b>CO2:</b> Analyze intercultural communication, nonverbal communication, and the challenges of translation in communication.	<a href="#">VIEW</a>
		<b>CO3:</b> Identify and analyze barriers to communication, and understand listening techniques, communication rules, and styles.	<a href="#">VIEW</a>
		<b>CO4:</b> Apply principles of interpersonal, relational, and organizational communication, and analyze effective communication in teams and persuasive settings.	<a href="#">VIEW</a>



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		<b>C05:</b> Evaluate communication strategies in negotiation, conflict management, leadership, and crisis situations in international business communication.	<a href="#">VIEW</a>
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