DEPARTMENT OF COMPUTER APPLICATIONS

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

COURSE OUTLINE TEMPLATE

Course Title	Database Management Systems		
Course Code	CAS767	No. of Credits	3
Department	Computer Applications	Faculty	Dr.N.P.Gopalan
Pre-requisites Course Code	CAS761		
Course Coordinator(s)	Dr S SANGEETHA		
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Course Type	Core course		

COURSE OVERVIEW

The database management systems course provides a general overview of the nature and purpose of database systems, it presents the entity-relationship model with its design issues and constraints and also presents the relational model covering the relational algebra, relational calculus and SQL. It focuses on the relational database design which covers the theory of functional dependencies and normalization with emphasis on the understanding of each normal form. It deals with file-system structure and with the mapping of relational data to a file system,. It explains a variety of access techniques such as hashing and indexing. It addresses query-evaluation algorithms, and query optimization based on equivalence-preserving query transformations. The course also focuses on the database tuning, security, transaction-processing system, concurrency control, techniques for ensuring serializability and recovery.

COURSE OBJECTIVES

- To learn different database models and design of databases.
- To study query languages and transaction management.

COURSE OUTCOMES (CO)

Course Outcomes	Aligned Programme Outcomes (PO)
1.Illustrate the features of DBMS& Models for designing databases	1,2,3,5,7,8
2.describe the nuances of data retrieval methods	1,3,5,7
3.Apply normalization techniques in DB design	1,2,3,7
4.Perform concurrency and Transaction Management operations.	2,3,7,8

COURSE TEACHING AND LEARNING ACTIVITIES