THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI-15

(A Govt. Aided Autonomous Institution affiliated to Anna University)

-   where Quality and Ethics matter

QEEE COURSES

INTRODUCTION TO DBMS - DATABASE MANAGEMENT SYSTEMS

COURSE CONTENT:

- Database system architecture Data Abstraction, Data Independence, Data Definition and Data Manipulation Languages.Data models Entity-relationship, network, relational and object oriented data models, integrity constraints and data manipulation operations.
- Relational query languages Relational algebra, tuple and domain relational calculus, SQL and QBE.
- Relational database design Domain and data dependency, Armstrong's axioms, normal forms, dependency preservation, lossless design.
- Query processing and optimization Evaluation of relational algebra expressions, query equivalence, join strategies, query optimization algorithms.
- Storage strategies Indices, B-trees, hashing.
- Transaction processing Recovery and concurrency control, locking and timestamp based schedulers, multiversion and optimistic Concurrency Control schemes.
- Advanced topics Object-oriented and object relational databases, logical databases, web databases, distributed databases, data warehousing and data mining