



INTRODUCTION TO DATABASE SYSTEMS

PROF. SREENIVASA KUMAR

Department of Computer Science and Engineering
IIT Madras

TYPE OF COURSE : Rerun | Core | UG**COURSE DURATION** : 12 weeks (24 Jan' 22 - 15 Apr' 22)**EXAM DATE** : 23 Apr 2022

PRE-REQUISITES : Studying B Tech (computer science) 3rd year Discrete Mathematics and Data Structures

INTENDED AUDIENCE : Any Interested Learners

COURSE OUTLINE :

Databases are the backbone of almost all the digital services and e-governance solutions. Modern businesses and financial systems heavily depend on databases systems and transaction processing for their successful operation. This course introduces the students to the various theoretical and practical principles involved in the design and use of databases systems with the help of database management systems (DBMS) and the SQL Standard.

ABOUT INSTRUCTOR :

Prof. P Sreenivasa Kumar has been a member of the faculty of the CSE Dept for the past two decades. His research interests are: databases, semi-structured data and XML, theory and applications of ontologies. He completed his Masters and PhD from the Department of Computer Science and Automation of Indian Institute of Science, Bangalore.

COURSE PLAN :

Week 1: Introduction and part of E/R Model Module

Week 2: ER Model Module

Week 3: Relational Model Module

Week 4: Relational Model Module

Week 5: TRC Module and part of SQL Module

Week 6: SQL Module

Week 7: Indexes Module

Week 8: Indexes Module + Query Processing Module

Week 9: Normal Forms Module

Week 10: Normal Forms Module

Week 11: Transaction Processing Module

Week 12: Transaction Processing Module