

Recent Trends In IT

Semester VI	Subject Code: BC61703	Lectures: 60
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Objectives:

The syllabus aims in equipping students with,

- Upcoming trends in Information technology
- Knowledge of Eco friendly software development

Unit 1: Distributed Databases	10
<ul style="list-style-type: none"> • Standalone v/s Distributed databases • Replication • Fragmentation • Client / Server architecture, • Types of distributed databases <p>Object – Relational Databases</p> <ul style="list-style-type: none"> • Abstract Data types • Nested Tables • Varying Arrays • Naming Conventions for Objects 	

Unit 2: Data Warehouse	12
<ul style="list-style-type: none"> • What is Data Warehouse? • A Multidimensional Data Model • Data Warehouse Architecture • Data Warehouse Implementation • Data cube Technology • From Data Warehousing to Data Mining • Data Mining • Functionalities (Data Cleaning, Data Integration and Transformation, Data Reduction) 	

Unit 3: Network Security	14
<ul style="list-style-type: none"> • Introduction to Cryptography • Substitution Ciphers, Transposition Ciphers, One-Time Pads • Two Fundamental Cryptographic Principles 	



<ul style="list-style-type: none"> • Symmetric Key Algorithms (DES-The Data Encryption Standards, AES – The Advances Encryption Standard) • Public Key algorithms(RSA, Other Public Key algorithms) • Digital Signatures • Symmetric-Key Signature • Public key Signature • Message Digests 	
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Unit 4: Mobile Application Development: Overview	08
<ul style="list-style-type: none"> • Mobile Technologies: Android, iOS and Windows • Android Architecture and Features • Android Versions: Froyo, Gingerbread, Ice Cream Sandwich , Jellybean, Kitkat and Marshmallow (Introduction) • Android Development Tool: SDK, Android Studio 	

Unit 5: Computing and Informatics	04
<ul style="list-style-type: none"> • Introduction to computing • Types of computing: Cloud, Green, Soft, Mobile • Case Study 	

***Contact hours – 12 hours**

Recommended Text Book:
<ol style="list-style-type: none"> 1. <i>Recent Trends in IT</i>, Nirali Publication 2. <i>Recent Trends in IT</i>, Vision Publication

Reference Books:
<ol style="list-style-type: none"> 1. Korth, Silberschatz, Sudarshan, <i>Database System Concepts</i>, McGraw Hill 2. Jiawei Micheline Kamber, <i>Data Mining Concepts and Techniques</i>, Morgan Kaufmann Publishers 3. William Stallings, <i>Network Security Essentials</i>, Prentice-Hall

