



Department of Computer Science & Engineering			LP: CS18501
B.E/B.Tech	: CS & IT	Regulation: 2018	Rev. No: 00
Sub. Code / Sub. Name: CS18501 / User Interface Technologies			Date: 19/06/2020
Unit	: 1		

UNIT I INTRODUCTION TO WWW

Introduction to Computer networks - Internet Standards – Introduction to WWW – WWW Architecture – SMTP – POP3 – File Transfer Protocol - Overview of HTTP, HTTP request – response — Generation of dynamic web pages.

Objective:

- To understand the concepts of the World Wide Web
- To understand the architecture of the World Wide Web

Session No *	Topics to be covered	Ref	Teaching Aids
1	Introduction to Computer networks	WEB1	PPT
2	Internet Standards	WEB1	PPT
3	Internet Standards and its need	T1-Ch.1:Pg. No.19-23	PPT
4	Introduction to WWW	T1-Ch.1:Pg. No.25-37	PPT
5	Introduction to WWW – real-time examples	WEB1	PPT
6	WWW Architecture	T1-Ch.1:Pg. No.38-53	PPT
7	SMTP	WEB1	PPT
8	POP3	WEB1	PPT
9	File Transfer Protocol	WEB1	PPT
10	Overview of HTTP	WEB1	PPT
11	HTTP request – response	WEB1	PPT
12	Generation of dynamic web pages	T1-Ch.1:Pg. No.54-60	PPT
Content beyond syllabus covered (if any):			

* Session duration: 50 minutes



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Unit : II

UNIT II UI DESIGN

HTML5: What is HTML5 - Features of HTML5 – Semantic Tags – New Input Elements and tags - Media tags (audio and video tags) – Designing Graphics using Canvas API - Drag and Drop features – Geolocation API - Web storage (Session and local storage).

CSS3: What is CSS3 –Features of CSS3 – Implementation of border radius, box shadow, image border, custom web font, backgrounds - Advanced text effects(shadow) - 2D and 3D Transformations - Transitions to elements - Animations to text and elements

Objective:

- To understand and practice Markup Language

Session No *	Topics to be covered	Ref	Teaching Aids
13	What is HTML5 - Features of HTML5	T2-Ch.2:Pg. No.61-80	PPT
14	Semantic Tags – New Input Elements and tags	T2-Ch.2:Pg. No.81-93	PPT
15	Media tags (audio and video tags)	T2-Ch.2:Pg. No.104-107	PPT
16	Designing Graphics using Canvas API	T2-Ch.2:Pg. No.94-103	PPT
17	Drag and Drop features – Geolocation API	T2-Ch.2:Pg. No.54-60	PPT
18	Web storage (Session and local storage).	T2-Ch.2:Pg. No.54-60	PPT
19	What is CSS3 –Features of CSS3	T2-Ch.1:Pg. No.54-60	PPT
20	Implementation of border radius, box shadow, image border, custom web font, backgrounds	T2-Ch.1:Pg. No.54-60	PPT
21	Advanced text effects(shadow)	WEB1	PPT
22	2D and 3D Transformations	WEB1	PPT
23	Transitions to elements	WEB1	PPT
24	Animations to text and elements	WEB1	PPT

Content beyond syllabus covered (if any):

**Sub. Code / Sub. Name: CS18501 / User Interface Technologies****Unit : III****UNIT III INTRODUCTION TO JAVASCRIPT**

Introduction - Core features - Data types and Variables - Operators, Expressions and Statements - Functions & Scope - Objects - Array, Date and Math related Objects - Document Object Model - Event Handling - Browser Object Model - Windows and Documents - Form handling and validations.

Object-Oriented Techniques in JavaScript - Classes - Constructors and Prototyping (Sub classes and Super classes) - JSON - Introduction to AJAX - Introduction to jQuery

Objective:

- To understand Embedded Dynamic Scripting on Client-side Internet Programming

Session No *	Topics to be covered	Ref	Teaching Aids
25	Introduction - Core features	R1-Ch.1:Pg. No.1-4	PPT
26	Data types and Variables - Operators, Expressions and Statements	R1-Ch.1:Pg. No. 5-11	PPT
27	Functions & Scope	R1-Ch.1:Pg. No. 12-34	PPT
28	Objects - Array, Date and Math related Objects	R1-Ch.2:Pg. No. 35-46	PPT
29	Document Object Model	R3-Ch 6;Pg.185-207 R3-Ch 12;Pg.395-413	PPT
30	Event Handling	R3-Ch 11;Pg.360-385	PPT
31	Browser Object Model	R3-Ch 6;Pg.185-207 R3-Ch 12;Pg.395-413	PPT
32	Windows and Documents - Form handling and validations	WEB1	PPT
33	Object-Oriented Techniques in JavaScript	WEB1	PPT
34	Classes - Constructors and Prototyping (Sub classes and Super classes)	WEB1	PPT
35	JSON - Introduction to AJAX	R3-Ch 16;Pg.571-574	PPT
36	Introduction to jQuery	WEB1	PPT

Content beyond syllabus covered (if any):

* Session duration: 50 mins

**Sub. Code / Sub. Name: CS18501 / User Interface Technologies****Unit : IV****Unit Syllabus: INTRODUCTION TO NOSQL DATABASE - MONGODB**

What is NoSQL Database - Why to Use MongoDB - Difference between MongoDB & RDBMS - Download & Installation - Common Terms in MongoDB – Implementation of Basic CRUD Operations using MongoDB

Objective:

- To understand and practice NoSQL Database
- To understand and practice MongoDB Database

Session No *	Topics to be covered	Ref	Teaching Aids
37	Intoduction – What is NoSQL Database	R1-Ch.1:Pg. No.7-9	PPT
38	Why to Use MongoDB	WEB1	PPT
39	Difference between MongoDB & RDBMS	R4-Ch.1:Pg. No.3-4	PPT
40	Difference between MongoDB & RDBMS with examples	WEB1	PPT
41	Download MongoDB for various operating system	R4-A:Pg. No. 385-389	PPT
42	Installation MongoDB for various operating system	WEB1	PPT
43	Common Terms in MongoDB	R4-Ch.2:Pg. No.14-16, Ch.3:Pg. No.29-52	PPT
44	Implementation of Basic CRUD Operations using MongoDB	R4-Ch.2:Pg. No.14-16, Ch.3:Pg. No.29-52	PPT
45	Create operation with examples	WEB1	PPT
46	Read/Retrieve operation with examples	WEB1	PPT
47	Update operation with examples	WEB1	PPT
48	Delete operation with examples	WEB1	PPT
Content beyond syllabus covered (if any):			

* Session duration: 50 mins



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Unit : V

Unit Syllabus: INTRODUCTION TO SERVER-SIDE JS FRAMEWORK – NODE.JS

Introduction - What is Node JS – Architecture – Feature of Node JS - Installation and setup - Creating web servers with HTTP (Request & Response) – Event Handling - GET & POST implementation - Connect to NoSQL Database using Node JS – Implementation CRUD operations.

Objective:

- To understand and practice Server-side JS Framework

Session No *	Topics to be covered	Ref	Teaching Aids
49	Introduction - What is Node JS	R3-Ch.1:Pg. No.7-9	PPT
50	Architecture	R3-Ch.1:Pg. No.9-10	PPT
51	Feature of Node JS	T2-Ch.1:Pg. No.1-3	PPT
52	Installation and setup	R3-Ch.1:Pg. No.10-23	PPT
53	Creating web servers with HTTP (Request & Response)	T2-Ch.1:Pg. No.3-10	PPT
54	Event Handling	T2-Ch.1:Pg. No.10-14	PPT
55	GET implementation	R3-Ch.3:Pg. No.67-72	PPT
56	POST implementation	T2-Ch.9:Pg. No.69-72	PPT
57	Connect to NoSQL Database using Node JS	R4-Ch.2:Pg. No.14-16, Ch.3:Pg. No.29-52	PPT
58	Implementation CRUD operations	R3-Ch.3:Pg. No.67-72	PPT
59	Create & Read/Retrieve operation with examples	WEB1	PPT
60	Update and Delete operation with examples	WEB1	PPT

Content beyond syllabus covered (if any):



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TEXT BOOKS:

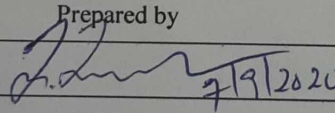
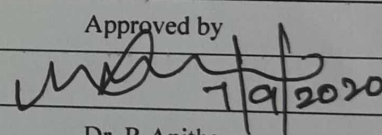
1. Web Technologies-A Computer Science Perspective-Jeffrey C.Jackson, 4th Edition, 2007
2. AmolNayak, "MongoDB Cookbook", Second Edition, Packt Publishing, 2016
3. KrasimirTsonev, "Node.js by Example", Packt Publishing, 2015

REFERENCES :

1. An Introduction to web development and Programming- Michael Mendez Suny Fredonia, 2014
2. David Flanagan, "JavaScript: The Definitive Guide, Sixth Edition", O'Reilly Media, 2011
3. Deitel and Deitel and Nieto, "Internet and World Wide Web - How to Program", Prentice Hall, 5th Edition, 2011.
4. Sandro Pasquali, "Mastering Node.js", First Edition, Packt Publishing, 2013.
4. Kristina Chodorow, "MongoDB : The Definitive Guide", Second Edition, O' Reilly Publications, 2013..

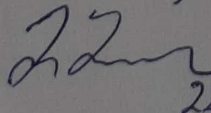
WR - Web Reference

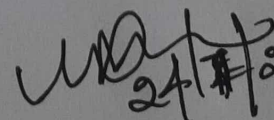
web1. www.w3schools.com

	Prepared by	Approved by
Signature		
Name	Dr. J M Gnanasekar	Dr. R Anitha
Designation	Professor & Assistant Head	Professor & Head
Date	19/06/2020	19/06/2020
Remarks *:		
Remarks *:		

* If the same lesson plan is followed in the subsequent semester/year it should be mentioned and signed by the Faculty and the HOD

No change in this lesson plan for Aug 21-22 (odd sem.)


22/07/21


24/7/2021