

Web Technologies-Lab					
Credit Hours:	1	Course Code:	INFT-3230	Prerequisites:	None
Course Learning Outcomes (CLOs):					
At the end of the course, the students will be able to:				Domain	BT Level*
1. Demonstrate web technologies, web services and web languages.				C	1
2. What are relevant web services and how to configure and use them.				C	2
3. Understand the different components for developing client/server applications.				C	3
4. Understand the enabling technologies for building Internet and Web database applications.				C	3
5. How to develop static and dynamic web pages using different web technologies				C	4
* BT= Bloom’s Taxonomy, C=Cognitive Domain, P=Psychomotor Domain, A=Affective Domain					
#	SDG	Relevant CLOs			
1	SDG 4: Quality Education	CLO 1: Demonstrate web technologies, web services and web languages.			
2	SDG 9: Industry, Innovation and Infrastructure	CLO 5: How to develop static and dynamic web pages using different web technologies			
Course Contents:					
Understanding the internet and the World Wide Web (WWW), Historical overview of web technologies, Key web terminology and concepts, HTML structure and syntax, Common HTML elements (e.g., headings, paragraphs, lists), Forms and input elements, HTML5 features, Styling web pages with CSS, Selectors and specificity, Layout and positioning, CSS frameworks and pre-processors (e.g., Bootstrap), Introduction to JavaScript, Variables, data types, and operators, Functions and scope, DOM manipulation (interacting with the Document Object Model), Event handling, Web APIs and Asynchronous JavaScript (AJAX), Text editors and integrated development environments (IDEs), Browser developer tools for debugging and testing, Web hosting options, Domain registration and management, Uploading files to a web server, Common web security threats (e.g., XSS, CSRF), Best practices for secure coding, HTTPS and SSL/TLS, Web security tools and practices, Introduction to server-side scripting languages (e.g., PHP, Node.js), Web Servers, xamp Configuration, Working with databases (e.g., MySQL, MongoDB), Building dynamic web applications, Industry Trends and Best Practices: Staying up-to-date with the latest web development trends and best practices is essential in this field.					
Teaching Methodology:					
Lectures, Written Assignments, Practical labs, Semester Project, Presentations.					
Course Assessment:					
Mid Term Exams, Final Term Exams, Assignments, Quizzes, Project, Presentations, Practical Exam					
Reference Material:					
1. Essentials of Cloud Computing: A Holistic Perspective by Chellammal Surianarayanan , 2019, ISBN-10: 3030131335					
2. Web Application Architecture: Principles, protocols and practices by Leon Shklar and Richard Rosen, Wiley, 2 nd Edition, 2009; ISBN-10:047051860X					
3. Web Technologies: A Computer Science Perspective by Jeffrey C. Jackson, Prentice Hall, 1 st Edition, 2006; ISBN- 10:0131856030					