Lesson Plan: - CSEPC 303
TH2- WEB TECHNOLOGIES
5th Semester CSE- Winter 2026

Name of the Faculty- Prabeen Kumar Pattnaik **Date- 1st July 2026**

Unit I: Introduction to www: (8 Classes)	
1	Protocols and programs
2	secure connections
3	application and development tools
4	the web browser
5	what is server
6	setting up UNIX and LINUX web servers,
7	Logging users
8	dynamic IP Web Design: Website design principles, planning the site and navigation
Unit II –: Web Systems Architecture: (8 Classes)	
9	Architecture of Web based systemsclient/server (2-tier) architecture,
10	client/server (2-tier) architecture,
11	Building blocks offast and scalable data access
12	Concepts - Caches-Proxies-Indexes-Load
13	Balancers- Queues,
14	Web Application architecture (WAA)
Unit III – JavaScript: (8 Classes)	
15	Client-si d e scripting
16	what is JavaScript,
17	Simple JavaScript
18	variables,
19	functions,
20	conditions,
21	loops and repetition
Unit IV –Advance scripting: (8 Classes)	
22	JavaScript and objects,
23	JavaScript own objects,

24	DOM and web browser
25	forms and validations,
26	DHTML: Combining HTML,
27	, CSS and JavaScript, events and buttons
28	controlling your browser, Ajax: Introduction advantages & disadvantages,
29	Ajax based web application, alternatives of Ajax, XML, XSL and XSLT:
30	Introduction to XML, uses of XML, simple XML, XML key components, DTD and Schemas
31	XML with application, XSL and XSLT. Introduction to Web Services
Unit V : PHP (8 Classes)	
32	Server-side scripting, Arrays, function and forms,
33	advance PHP Databases - Basic command with PHP examples,
34	Connection to server,
35	creating database, selecting a database,
36	, listing database,
37	, listing table names creating a table,
38	inserting data, altering tables, queries, deleting Database,
39	, deleting data and tables, PHP my admin and database bugs.
Unit VI – Introduction to Modern Frameworks: (5 Classes)	
40	React
41	Angular
42	Node JS
43	Bootstrap
45	Tailwind CSS.

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Lesson Plan: - CSEPE 303
TH4 (A)Mobile Computing
5th Semester CSE- Summer 2026

Name of the Faculty- Pratibha Patnaik **Date-08/07/2026**

Unit I – Introduction to Wireless and Mobile Network:	
1	Historic background.
2	Cellular Industry.
3	advantages & disadvantages of Mobile systems.
4	Cell concepts.
5	Wireless Network
Unit II – Basics of Wireless & Mobile System:	
1	Wire based and wireless systems.
2	Infrared systems.
3	cellular radio.
4	Concepts of wireless LANS.
5	voice signals-its characteristics.
6	Frequency spectrum.
7	digital signal, Broadband and base band signals.
Unit III –Cellular Systems:	
1	*Cell layout, path-loss.*
2	propagation delay.
3	fading size and shape of cell.
4	Concepts of frequency reuse.
5	spectrum efficiency.
6	Cell capacity to handle calls.
Unit IV-Channel Utilization Schemes:	
1	Concepts of Multiplexing: FDM, FDMA, TDD, TDM, TDMA, CDMA.
2	Concepts of spread spectrum and frequency hopping.
3	Introductory idea on AMPS.
4	Compression operations - voice compression and data compression.
5	V.42, fax compression-introductory idea.

Unit V – Global System for Mobile Communication (GSM):	
1	Historical background.
2	SIM and GSM.
3	Overview of GSM operations- Registration.
4	Call Establishment.
5	Roaming.
6	GSM channel and operations.
Unit VI -- Blue tooth and Wireless LANS:	
1	Need of compatibility.
2	Bluetooth concepts.
3	Comparison with IR system.
4	Architecture, potential applications.
5	IEEE802.11x Wireless LAN standard-basic configuration and architecture
6	concepts of wireless home networking.

Pratibha Ashwath 8/7/26

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Lesson Plan: - OE 301
TH:5(B)- LEADERSHIP AND MANAGEMENT SKILLS

5th Semester CSE- Winter 2026

Name of the Faculty- Prabeen Kumar Pattnaik **Date- 1st july 2026**

Unit I – Leadership & Management, concept, principles. : (10 Classes)	
1	Definition of leadership, management
2	Leadership theories
3	Leadership characteristics
4	Principles of management
5	Principles of management
6	Managerial functions
7	Managerial functions
8	Leader v/s Manager
9	Leader/Manager traits and character
10	Leadership Styles
Unit II – Human Resource Management in Organizations : (10 Classes)	
11	Human Resource Management: Meaning, Nature
12	Human Resource Management: Objectives, Scope
13	Human Resource Management: Objectives, Scope
14	Job & Job analysis
15	Staff Development: Need and Objectives of Staff Development
16	Staff Development: Approaches
17	Training & development
18	Organizational Development: Components of OD process
19	Organizational Development: Components of OD process
20	Learning organization
Unit III – Personal disposition, skills & abilities of leaders : (9 Classes)	
21	Self-awareness
22	Leadership characteristics, traits

23	Leadership skills & abilities
24	Emotional intelligence & its components,
25	importance in leadership, Communication skills for effective leadership,
26	barriers to effective communication,
27	Active Listening, Mindful listening.
28	Leading & Mentorship
29	Influencing & mentoring
Unit IV – Leader's role in Motivating, Inspiring and Transformative leadership, nurturing team-work : (8 Classes)	
30	Goal setting & leadership
31	Transformative Leadership
32	vision & envisioning
33	Motivational role of leader in people management
34	Group & team
35	Team dynamics
36	Conflict management
37	strategies in managing conflicts
Unit V – Change Management & Leadership : (8 Classes)	
38	Models of change
39	Forces driving change
40	Change Management – process, goal, importance
41	Change Management – process, goal, importance
42	The process of change happening in an organization
43	The process of change happening in an organization
44	Key aspects of leadership in change management
45	*responsibilities of a change leader.*

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Lesson Plan: - CSEPC 305

PR:1- INTERNET OF THINGS LAB

5th Semester CSE- Winter 2026

Name of the Faculty- Pratibha Patnaik **Date- 8th july 2026**

Unit I(6 classes)	
1.	Setting up Arduino and Raspberry Pi boards. Running a basic LED blink program.
2.	Setting up Arduino and Raspberry Pi boards. Running a basic LED blink program.
3.	Setting up Arduino and Raspberry Pi boards. Running a basic LED blink program.
4.	Setting up Arduino and Raspberry Pi boards. Running a basic LED blink program.
5.	Setting up Arduino and Raspberry Pi boards. Running a basic LED blink program.
6.	Setting up Arduino and Raspberry Pi boards. Running a basic LED blink program.
Unit II(6 classes)	
7.	Connecting a temperature and humidity sensor (DHT11) to Arduino. Displaying sensor readings on the Serial Monitor.
8.	Connecting a temperature and humidity sensor (DHT11) to Arduino. Displaying sensor readings on the Serial Monitor.
9.	Connecting a temperature and humidity sensor (DHT11) to Arduino. Displaying sensor readings on the Serial Monitor.
10.	Connecting a temperature and humidity sensor (DHT11) to Arduino. Displaying sensor readings on the Serial Monitor.
11.	Connecting a temperature and humidity sensor (DHT11) to Arduino. Displaying sensor readings on the Serial Monitor.
12.	Connecting a temperature and humidity sensor (DHT11) to Arduino. Displaying sensor readings on the Serial Monitor.
Unit III (6 classes)	
13.	Connecting a PIR motion sensor and LDR (Light Dependent Resistor). Displaying motion and light intensity values.
14.	Connecting a PIR motion sensor and LDR (Light Dependent Resistor). Displaying motion and light intensity values.

15.	Connecting a PIR motion sensor and LDR (Light Dependent Resistor). Displaying motion and light intensity values.
16.	Connecting a PIR motion sensor and LDR (Light Dependent Resistor). Displaying motion and light intensity values.
17.	Connecting a PIR motion sensor and LDR (Light Dependent Resistor). Displaying motion and light intensity values.
18.	Connecting a PIR motion sensor and LDR (Light Dependent Resistor). Displaying motion and light intensity values.
Unit IV (6 classes)	
19.	Interfacing a relay module with Arduino. Turning an LED or motor ON/OFF based on sensor input.
20.	Interfacing a relay module with Arduino. Turning an LED or motor ON/OFF based on sensor input.
21.	Interfacing a relay module with Arduino. Turning an LED or motor ON/OFF based on sensor input.
22.	Interfacing a relay module with Arduino. Turning an LED or motor ON/OFF based on sensor input.
23.	Interfacing a relay module with Arduino. Turning an LED or motor ON/OFF based on sensor input.
24.	Interfacing a relay module with Arduino. Turning an LED or motor ON/OFF based on sensor input.
Unit V (6 classes)	
25.	Installing an MQTT broker (e.g., Mosquitto). Sending and receiving messages using MQTT.
26.	Installing an MQTT broker (e.g., Mosquitto). Sending and receiving messages using MQTT.
27.	Installing an MQTT broker (e.g., Mosquitto). Sending and receiving messages using MQTT.
28.	Installing an MQTT broker (e.g., Mosquitto). Sending and receiving messages using MQTT.
29.	Installing an MQTT broker (e.g., Mosquitto). Sending and receiving messages using MQTT.
30.	Installing an MQTT broker (e.g., Mosquitto). Sending and receiving messages using MQTT.

Unit VI (6 classes)	
31.	Connecting an ESP8266 module to a Wi-Fi network. Sending sensor data to a cloud platform (ThingSpeak).
32.	Connecting an ESP8266 module to a Wi-Fi network. Sending sensor data to a cloud platform (ThingSpeak).
33.	Connecting an ESP8266 module to a Wi-Fi network. Sending sensor data to a cloud platform (ThingSpeak).
34.	Connecting an ESP8266 module to a Wi-Fi network. Sending sensor data to a cloud platform (ThingSpeak).
35.	Connecting an ESP8266 module to a Wi-Fi network. Sending sensor data to a cloud platform (ThingSpeak).
36.	Connecting an ESP8266 module to a Wi-Fi network. Sending sensor data to a cloud platform (ThingSpeak).
Unit VII (6 classes)	
37.	Collecting and processing real-time sensor data. Implementing basic edge computing using Python.
38.	Collecting and processing real-time sensor data. Implementing basic edge computing using Python.
39.	Collecting and processing real-time sensor data. Implementing basic edge computing using Python.
40.	Collecting and processing real-time sensor data. Implementing basic edge computing using Python.
41.	Collecting and processing real-time sensor data. Implementing basic edge computing using Python.
42.	Collecting and processing real-time sensor data. Implementing basic edge computing using Python.
Unit VIII (6 classes)	
43.	Storing IoT sensor data in a CSV file. Visualizing the data using Matplotlib in Python.
44.	Storing IoT sensor data in a CSV file. Visualizing the data using Matplotlib in Python.
45.	Storing IoT sensor data in a CSV file. Visualizing the data using Matplotlib in Python.
46.	Storing IoT sensor data in a CSV file. Visualizing the data using Matplotlib in Python.
47.	Storing IoT sensor data in a CSV file. Visualizing the data using Matplotlib in Python.
48.	Storing IoT sensor data in a CSV file. Visualizing the data using Matplotlib in Python.

Unit IX (6 classes)	
49.	Encrypting sensor data before transmission. Implementing simple AES encryption using Python.
50.	Encrypting sensor data before transmission. I mplementing simple AES encryption using Python.
51.	Encrypting sensor data before transmission. Implementing simple AES encryption using Python.
52.	Encrypting sensor data before transmission. Implementing simple AES encryption using Python.
53.	Encrypting sensor data before transmission. Implementing simple AES encryption using Python.
54.	Encrypting sensor data before transmission. Implementing simple AES encryption using Python.
Unit X (6 classes)	
55.	Controlling home appliances using a web interface. Turning devices ON/OFF using HTTP requests.
56.	Controlling home appliances using a web interface. Turning devices ON/OFF using HTTP requests.
57.	Controlling home appliances using a web interface. Turning devices ON/OFF using HTTP requests.
58.	Controlling home appliances using a web interface. Turning devices ON/OFF using HTTP requests.
59.	Controlling home appliances using a web interface. Turning devices ON/OFF using HTTP requests.
60.	Controlling home appliances using a web interface. Turning devices ON/OFF using HTTP requests.

Prestha Pathak 8/7/26
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Lesson Plan: - CSEPC 307
PR2- WEB TECHNOLOGIES LAB
5TH Semester CSE- Winter 2026

Name of the Faculty- Prabeen Kumar Pattnaik **Date-1/07/2026**

Unit-1 (4 classes)	
1	Coding Server Client Programs
2	Coding Server Client Programs
3	Coding Server Client Programs
4	Coding Server Client Programs
Unit-2 (6 classes)	
5	Developing Web Application using HTML
6	Developing Web Application using HTML
7	Developing Web Application using HTML
8	Developing Web Application using HTML
9	Developing Web Application using HTML
10	Developing Web Application using HTML
Unit-3 (10 classes)	
11	Developing Advanced Web Application Programs using CSS
12	Developing Advanced Web Application Programs using CSS
13	Developing Advanced Web Application Programs using CSS
14	Developing Advanced Web Application Programs using CSS
15	Developing Advanced Web Application Programs using CSS
16	Developing Advanced Web Application Programs using CSS

17	Developing Advanced Web Application Programs using CSS
18	Developing Advanced Web Application Programs using CSS
19	Developing Advanced Web Application Programs using CSS
20	Developing Advanced Web Application Programs using CSS
Unit-4 (10 classes)	
21	Practicing PHP: Basics
22	Practicing PHP: Basics
23	Practicing PHP: Basics
24	Practicing PHP: Basics
25	Practicing PHP: Basics
26	Practicing PHP: Basics
27	Practicing PHP: Basics
28	Practicing PHP: Basics
29	Practicing PHP: Basics
30	Practicing PHP: Basics
Unit-5 (10 classes)	
31	Practicing PHP: Web Application Development
32	Practicing PHP: Web Application Development
33	Practicing PHP: Web Application Development
34	Practicing PHP: Web Application Development
35	Practicing PHP: Web Application Development
36	Practicing PHP: Web Application Development

37	Practicing PHP: Web Application Development
38	Practicing PHP: Web Application Development
39	Practicing PHP: Web Application Development
40	Practicing PHP: Web Application Development
Unit-6 (10 classes)	
41	Practicing PHP: MySql
42	Practicing PHP: MySql
43	Practicing PHP: MySql
44	Practicing PHP: MySql
45	Practicing PHP: MySql
46	Practicing PHP: MySql
47	Practicing PHP: MySql
48	Practicing PHP: MySql
49	Practicing PHP: MySql
50	Practicing PHP: MySql
Unit-7 (10 classes)	
51	Developing a fully functional Web Service Application using all the Technologies learned in this course.
52	Developing a fully functional Web Service Application using all the Technologies learned in this course.
53	Developing a fully functional Web Service Application using all the Technologies learned in this course.

54	Developing a fully functional Web Service Application using all the Technologies learned in this course.
55	Developing a fully functional Web Service Application using all the Technologies learned in this course.
56	Developing a fully functional Web Service Application using all the Technologies learned in this course.
57	Developing a fully functional Web Service Application using all the Technologies learned in this course.
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59	Developing a fully functional Web Service Application using all the Technologies learned in this course.
60	Developing a fully functional Web Service Application using all the Technologies learned in this course.

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