DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING - CYBER SECURITY

Lesson Plan & Work-done Diary for AY:2025-26, Even Semester

Course with Code: Wireless and Mobile Device Security - BCY613D						Faculty: Ms. Sandhya G			Semester & Section: 6th	
Module	**Class No.**	**Date planned (DD/MM)**	**Topics to be covered**		**TLP Planned**	**Date of Conduction (DD/MM)**	**Topics Covered**		**TLP Executed**	**Remarks if any deviation**
MODULE-1	1		**The Evolution of Data Networks:** The Dawn of Data Communication; Early Data Networks;		Power Point Presentation (PPT) With projection					
	2		The Internet Revolution; Advances in Personal Computers and Mobile Phones; Computers Go Mobile;							
	3		Convergence of Mobile and Data Networks; Business Challenges Addressed by Wireless Networking;							
	4		IP Mobility and BYOD Impact; Security Considerations and Cybercrime Evolution;							
	5		**The Evolution of Wired Networking to Wireless Networking:** Networking and OSI Reference Model							
	6		Layers of the OSI Model; Transition from Wired to Wireless Networking; Economic Impact of Wireless Networking;							
	7		Applications in Health Care, Warehousing, Retail, and Knowledge Work;							
	8		WiFi Impact on Developing Nations and IoT Introduction							

Course with Code: Wireless and Mobile Device Security - BCY613D					Faculty: Ms. Sandhya G		Semester & Section: 6th	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-2	10		**The Mobile Revolution:** Cellular Communication and Coverage; Frequency Sharing and Handoff;	Power Point Presentation (PPT) With projection				
	11		Evolution of Mobile Networks (1G to 4G/LTE);					
	12		BYOD and Economic Impact of Mobility; Business Use Cases for Mobile Networking;					
	13		**Security Threats Overview:** Threat Categories: Confidentiality, Integrity, Availability;					
	14		Wireless and Mobile Device Threats: Data Theft, System Access; Risk Mitigation and BYOD for SMBs;					
	15		Security Standards and Regulatory Compliance (ISO, NIST, PCI DSS);					

Course with Code : Wireless and Mobile Device Security - BCY613D					Faculty: Ms. Sandhya G			Semester & Section: 6th	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered		TLP Executed	Remarks if any deviation
MODULE-3	16		**How Do WLANs Work?** WLAN Topologies, Service Sets, and Standards;	Power Point Presentation (PPT) With projection					
	17		Wireless Access Points (WAPs) and Antennas;						
	18		Coverage Area Determination and Site Surveys;						
	19		Spectrum and Protocol Analysis;						
	20		**WLAN and IP Networking Threat and Vulnerability Analysis:** Types of Attackers:						
	21		Insiders vs. Outsiders; Physical Security, Social Engineering, and Wardriving;						
	22		Rogue Access Points and Bluetooth Vulnerabilities;						
	23		Malicious Data Insertion, Denial of Service, and Peer to Peer Hacking						

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING - CYBER SECURITY

Course with Code: Wireless and Mobile Device Security - BCY613D					Faculty: Ms. Sandhya G			Semester & Section: 6th	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered		TLP Executed	Remarks if any deviation
MODULE-4	24		**Basic WLAN Security Measures:** Design and Implementation for Security;	Power Point Presentation (PPT) With projection					
	25		Authentication, MAC Filters, VPN, and VLANs; Wired Equivalent Privacy, WPA, WPA2;						
	26		Ongoing Management Considerations (Firmware, Physical Security);						
	27		Advanced WLAN Security Measures: Comprehensive Security Policies;						
	28		Authentication and Access Control (EAP, RADIUS);						
	29		Intrusion Detection/Prevention Systems and Protocol Filtering;						
	30		Advanced Data Protection: WPA2 Modes, VPN, IPsec; User Segmentation, VLANs, DMZ Segmentation;						
	31		Device and Network Management						

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING - CYBER SECURITY

Course with Code: Wireless and Mobile Device Security - BCY613D					Faculty: Ms. Sandhya G			Semester & Section: 6th	
Module	Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Date of Conduction (DD/MM)	Topics Covered		TLP Executed	Remarks if any deviation
MODULE-5	32		**WLAN Auditing Tools:** Discovery Tools (NetStumbler, Kismet); Penetration Testing Tools (Metasploit, Aircrackng);	Power Point Presentation (PPT) With projection					
	33		Network Enumerators, Protocol Analyzers, and Attack Tools;						
	34		WLAN and IP Network Risk Assessment: Risk Assessment Methodologies and Stages;						
	35		Security Risk Analysis and Audits; Legal Requirements and IT Security Management;						
	36		**Mobile Communication Security Challenges:** Mobile Phone Threats: Exploits, Tools, and Techniques;						
	37		Security Architectures: Android, iOS, Windows Phone; BYOD and Enterprise Mobility Management;						
	38		BYOD and EnterpriseMobility Management;						
	39		**Mobile Device Security Models:** Security Models: Android, iOS, Windows Phone;						
	40		Device Management, Encryption, and Handoff Challenges						

	Activity	Planned	Actual	Remarks
1	Theory Classes	40		
2	Assignments/Quizzes/ Self study	3/5		
3	Tutorials/ Extra classes	0		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	100%		
Planning			**Execution**	
Faculty Signature: Ms. Sandhya G			**Faculty Signature: Ms. Sandhya G**	
HOD Signature:			**HOD Signature:**	