

Branch Name:	CYBER SECURITY
Program Code:	ET207
Course Title:	Application Security, Vulnerability Practical
Course Code:	2ET2070204P
Pre-requisite Course:	To give exposure to various security threats to web applications/ servers and providing security to web servers

Course Objectives:

To use application security tools and vulnerability assessment tools.

Teaching and Examination Scheme:

Credit	Teaching Scheme Hours per week				Evaluation Scheme (Marks)								Total (Marks)
					Theory (Marks)				Practical (Marks)				
	L	T	P	Total	SEE		CCA		SEE		CCA		
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1	-	-	2	2	-	-	-	-	10	25	10	25	50

Course Contents:

Unit	Details	Contact Hours
1	a. Study of steps to protect your personal computer system by creating User Accounts with Passwords and types of User Accounts for safety and security. b. Study the steps to remove Passwords from Microsoft Word c. Steps to ensure Security of any one web browser (Mozilla Firefox/Google Chrome)	8
2	Study of Computer Forensics and different tools used for forensic investigation a. Study various methods of protecting and securing databases. b. Study “How to make strong passwords” and “passwords cracking techniques” c. Study of the features of firewall in providing network security and to set Firewall Security in windows	8
3	Study of Computer Forensics and different tools used for forensic investigation a. Study the steps to hack a strong password. b. Automated Attack and Penetration Tools Exploring N-Stalker, a Vulnerability Assessment Tool c. Study of different wireless network components and features of any one of the Mobile Security Apps.	8
4	a. Study of different types of vulnerabilities for hacking a websites / Web Applications. b. Analysis the Security Vulnerabilities of E-commerce services c. Analysis the security vulnerabilities of E-Mail Application	8

Reference Books:

1. Build Your Own Security Lab, Michael Gregg, Wiley India

Course Outcomes:

At the end of the course, students will be able to:

Course Outcomes	Description	Bloom's Taxonomy Level
CO1	Understand the use of Security Quality Assurance.	Understanding (2)
CO2	Apply practical knowledge of a variety of ways to test software and an understanding of some of the trade-offs between testing techniques.	Understanding (2)
CO3	Explain necessity of risk analysis.	Applying (3)
CO4	Demonstrate the application security system using open source tools	Applying (3)

Mapping of CLO with PO and PSO

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes(PSOs)			
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O3	PS O4
CLO1	H	M	M		M											
CLO2	H	M			M							L				
CLO3	H	M	M		M											
CLO4	M	M	M		M							L				

H: High, M: Medium, L: Low