INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal - 500 043, Hyderabad, Telangana

COURSE CONTENT

DIGITAL FORENSICS LABORATORY								
VII Semester: CSE (CS)								
Course Code	**Category**	**Hours / Week**			**Credits**	**Maximum Marks**		
		L	**T**	**P**	**C**	**CIA**	**SEE**	**Total**
ACCC17	**Core**	0	0	3	1.5	30	70	100
Contact Classes: Nil	**Tutorial Classes: Nil**	**Practical Classes: 36**				**Total Classes: 36**		
Prerequisite: Foundations of Cyber security								

I.COURSE OVERVIEW:

The process of assessing an application or infrastructure for vulnerabilities in an attempt to exploit those vulnerabilities, and circumvent or defeat security features of system components through rigorous manual testing.

II.COURSE OBJECTIVES:

The students will try to learn:

I. The tools that can be used to perform information gathering.
II. The attacks in various domains of cyberspace.
III. The exploits in various operating systems and Wireless environment.
IV. The vulnerability assessment can be carried out by means of automatic tools or manual investigation.
V. The vulnerabilities associated with various network applications and database system.

III.COURSE SYLLABUS:

Week – 1:

Install and configure information security devices

Week – 2:

Security assessment of information security systems using automated tools.

Week – 3:

1. Vulnerability Identification and Prioritization
2. Working with Exploits

Week – 4:

1. Password Cracking
2. Web Application Security Configuration

Week – 5:

Patch Management

Week – 6:

Bypassing Antivirus Software

Week – 7:

Static Malware Analysis

Week – 8:

Dynamic Malware Analysis

Week – 9:

Penetration Testing

Week – 10:

Using Metasploit to exploit

Week – 11:

1. MySQL SQL Injection
2. Risk Assessment

Week - 12

1. Information security incident Management
2. Exhibit Security Analyst Role

IV. REFERENCE BOOKS:

1. MariE-Helen Maras, "Computer Forensics: Cybercriminals, Laws, and Evidence", Jones & Bartlett Learning; 2nd Edition, 2014.
2. Chad Steel, "Windows Forensics", Wiley, 1st Edition, 2006.
3. Majid Yar, "Cybercrime and Society", SAGE Publications Ltd, Hardcover, 2nd Edition, 2013.
4. Robert M Slade, "Software Forensics: Collecting Evidence from the Scene of a Digital Crime", Tata McGraw Hill, Paperback, 1st Edition, 2004.