



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal - 500 043, Hyderabad, Telangana

COURSE CONTENT

CLOUD SECURITY LABORATORY								
VII Semester: CSE (CS)								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
ACCC18	Core	L	T	P	C	CIA	SEE	Total
		0	0	3	1.5	30	70	100
Contact Classes: Nil	Tutorial Classes: Nil	Practical Classes: 36			Total Classes: 36			
Prerequisite: Computer Networks								
<p>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.</p> <p>II. COURSE OBJECTIVES: The students will try to learn:</p> <ol style="list-style-type: none"> I. The tools that can be used to perform information gathering. II. The various 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. <p>III. COURSE SYLLABUS:</p> <p>Week – 1: Program to create one grid resource with three machines</p> <p>Week – 2: Program to create one or more Grid users. A Grid user contains one or more Gridlets</p> <p>Week – 3: Program to shows how two GridSim entities interact with each other ; main(ie example3) class creates Gridlets and sends them to the other GridSim entities, i.e. Test class</p> <p>Week – 4: Program shows how a grid user submits its Gridlets or tasks to one grid resource entity</p> <p>Week – 5: Program to show how a grid user submits its Gridlets or task to many grid resource entities</p> <p>Week – 6: Program to show how to create one or more grid users and submits its Gridlets or task to many grid resource entities</p> <p>Week – 7: Program to creates one Grid resource with three machines</p> <p>Week – 8: Building a Cloud using own cloud and LAMP server</p>								

Week – 9:

Implement to perform S3 bucket enumeration

Week – 10:

Implement to perform and exploiting misconfigured S3 buckets

Week –11:

Implement to perform escalating privileges of a target IAM user account by exploiting misconfigurations in a user policy

Week – 12:

Securing own cloud from Malicious File Uploads using CalmAV

IV. TEXT BOOKS:

1. Nina Godbole and Sunit Belpure, "Cyber Security Understanding Cyber Crimes, Computer Forensics and Legal Perspectives", Wiley Publications, 2014.
2. B.B.Gupta, D.P. Agrawal, Haoxiang Wang, "Computer and Cyber Security:Principles, Algorithm, Applications, and Perspectives", CRC Press, ISBN 9780815371335,2018.

V. REFERENCE BOOKS:

1. James Graham, Richard Howard and Ryan Otson , "Cyber Security Essentials", CRC Press..
2. Chwan-Hwa(john) Wu,J. David Irwin , "Introduction to Cyber Security" , CRC Press T&F Group.