

LUCIDEUS CERTIFIED CYBER SECURITY ANALYST (LCCSA)

### Course Title

#### LUCIDEUS CERTIFIED CYBER SECURITY ANALYST (LCCSA)

#### Course Description

This is a Penetration Testing & Information Security Training. The training provides you an intensive session which will empower you with knowledge in a simplified and easily graspable manner. In the training, we teach our students how hackers break into the systems, network, mobiles and websites so as to make them aware of the possible loopholes and therefore, making them proficient in reverse-penetration. By doing so, they are able to create a virtual wall between their data and the hackers. This training will enable you to carry out attacking as well defensive methodologies which will help you and your organization to not only protect but also assess the safety and vulnerability ratio.

#### **Delivery Method**

Methods	Duration Per Day	No. of Days	Course Duration	Practical Theory Ratio
Regular Training (MON - FRI)	2 Hours per Day	20 Working Days	40 Hours	7:3
BootCamp Training (MON - FRI)	8 Hours per Day	5 Working Days	40 Hours	7:3

#### Course Objectives

#### At the end of this course, participants will be able to:

- Understand and perform Information Gathering on Digital Foot Prints
- Understand Email attacks and will be able to protect their email accounts as well as social networking accounts from these attacks
- Analyze Malwares from a computer system and remove it manually
- Understand Web Application Attacks and will be able to patch them to produce a secure web application
- Understand windows memory management & assembly language to perform basic Reverse Engineering
- Understand Enterprise Network Security Architecture
- Understand Exploitation
- Understand Wireless Security
- Understand Security Architecture of mobile Platforms

#### Target audience

 This course can be attended by college student, security officers, auditors, security professionals, website administrators, anyone who is concerned about security of their network infrastructure and everyone who want to have a promising career in cyber security

#### **Prerequisites**

• Basic knowledge of computers and internet technologies.

#### Hands-On

• The course includes practical hands-on exercises that enable you to test your acquired skills during the training and understand its usage in a live environment

### Take Away

#### Certification

- Participants clearing final exam with more than 70% marks will be awarded with LCCSA (Lucideus Certified Cyber Security Analyst) Certificate.
- Each Participant would get participation certificate and training completion letter

#### Lucideus Cyber Security Toolkit

• Each participant will get a toolkit containing tools used during the training, with white papers, videos and other support software.

#### Lucideus -Information Security E-Cook Book

 Candidates will be provided with Lucideus Information Security E-Cook Book containing tutorials of the contents of the training

### Fee Structure of the Training

Course	Fees	Service Tax ( 12.36%)	Total
LCCSA Course & Training	15,000 INR	1,854 INR	16,854 INR
LCCSA Certification & Examination	5,000 INR	618 INR	5,618 INR



# Our Facilities







Introduction to Information Security	1 Hour
Introduction	
Need of Information Security	
Ethical Side of Hacking	
Steganography	
Introduction to Indian IT Acts & Cyber Law	
Latest Test Cases	
Conclusion	

Basic of Network & Web Technology	2 Hours
Introduction to Network	
IP Address	
Network Protocols	
NAT	
IP Subnets	
DHCP Server	
Ports	
Services	
DNS	
Proxy Servers	
Virtual Private Networks	
DNS Server	
OSI Model	
Introduction to TCP / IP Model	

Information Gathering & Foot printing	1 Hour
Digital Foot Print	
Information Gathering	
Who Is Information	
Web Server Details	
Reverse IP Mapping	
People Search	
Tools to perform Digital Foot printing	

Email Security	4 Hours
Phishing Attacks – Desktop Phishing, Spear Phishing	
IDN Homograph Attack	
Social Engineering	
Fake Emails	
Identify Fake Emails	
Key Loggers	
Email Encryption	
Security Counter Measures	

System Hacking	4 Hours
Login Bypass	
· Introduction to Authentication Mechanisms	
· Tools to Defeat Authentication	
Malware Illustration – Virus, Worms, Trojans	
Virus	
Trojans	
Evade Antivirus & Firewalls	
Scan System for Malicious Applications	
Secure System Configuration	

Web Application Vulnerability Assessment & Penetration Testing	11 Hours
Introduction to Web Architecture	
Introduction to HTML	
Introduction to PHP	
Web Security Misconceptions	
Introduction to DBMS – MySQL, MS SQL, Oracle, DB2	
Introduction to SQL	
Vulnerability Assessment & Penetration Testing	
OWASP Top 10 Attacks	
· Sensitive Data Exposure	
· Insecure Direct Object References	
· SQL Injections	
· Authentication Bypass Injection	
· Blind Injections	
· Error Based Injection	
· Union Based Injection	
· Cross Site Scripting (XS	
· Broken Authentication and Session Management	
· CSRF	
· Missing Function Level Access Control	
· Invalidated Redirects and Forwards	
· Security Misconfiguration	
· Using Components with Known Vulnerabilities	
Web Application Firewall	
· Misconfigured WAF	
Brute Forcing Attack	
Arbitrary File Upload	
Secure Development	
· Patch Critical Vulnerabilities	
· Secure Coding	
· Code Review	
Applications to Automate PT	
· SQL Map	
· Burp Suite	
· OWASP Xenotics XSS Framework	

Application to automate Web Application VA

- · W3af
- · IBM App Scan
- · HP Web Inspect

#### Google Hacking Database

1 Hour

Use Google to craft attacks

Advanced operators of Google

Find Vulnerabilities using Google

Security Countermeasures

#### Reverse Engineering

4 Hours

Introduction to Reverse Engineering

Windows Memory Management System

Assembly Language Basics

Application Debuggers & Dissassemblers

Application Cracking, Patching & Keygens

#### Introduction Linux

2 Hours

Linux Architecture & Kernel

**Open Source Applications** 

**Basic Commands** 

**Network Configuration on Linux** 

Install – Uninstall, Configure & Trouble Shoot Applications

Linux for Hackers

Introduction to Kali

Lab Setup

#### Wireless Security

3 Hours

Introduction to Wireless Technology

**MAC** Filtering

**Packet Encryption** 

Packet Sniffing

Types of Authentication

Attacks on WEP, WPA & WPA2 Encryption

Security Countermeasures

#### **Exploitation: 1 Buffer Overflow Attacks**

1 Hour

Introduction to x86 Architecture

Memory Analysis

Shell Code Compilation

Vanila Exploit

Stack Overflow

Egg Hunting

Various ways to deliver an exploit

Exploitation:2 Metasploit Framework	4 Hours
OS Detection	
Open Port & Service Detection	
Metasploit Framework Architecture	
Interfaces of Metasploit Framework	
Basic Terminologies	
Vulnerability Analysis	
Exploitation on Various Platforms	
Web Server Exploitation	
Evade Anti-Virus & Firewalls	

Mobile Security	2 Hours
Introduction to Mobile Platforms	
Security Architecture of Mobile Platform	
Introduction to VoIP	
VoIP Calls from any number to any number - Fake Calls	
Android Exploitation Framework	
Android Rooting	

TOTAL DURATION 40 Hours



# Our Milestones in Training and Skill Enhancement

- Lucideus is ISO 27001:2005 and ISO 9001:2008 certified organization for providing IT Security training, consulting and VA-PT activities
- Lucideus has its Advanced Cyber Threat Analysts & Malware Research Lab at computer science department of IIT Bombay
- Lucideus has got experience of more than 30,000 contact Hours of Information Security training to individuals
- Lucideus has trained over 60,000 individuals on various aspects of information security, ranging from engineering students to top management executives of fortune 100 companies
- Lucideus has conducted its courses / boot camps / training sessions in over 200 establishments
- Lucideus is the only private organization in India to offer courses on cyber security and IT skill enhancement, jointly with the government

#### Lucideus Key Trainers



**Saket** has been awarded the title of "Indian Ambassador of Cyber Security in Education" at the National Education Awards 2013. He along with his team have been conducting training and consultancy sessions across the globe. He has been invited to most of the elite institutions of India including IIT-Bombay, IIT-Delhi, and IIT-Guwahati etc., for conducting seminars or workshops on Ethical Hacking & Information Security. At a young age, he has already trained more than 5000 individuals across 100 plus Colleges, Corporates & Government Departments. Some of the organizations include IBM, Wipro, TCS, HCL, Intelligence Agencies, and Special Task Forces etc. Saket is also an advisor to reputed organizations, banks and e-commerce companies in designing safe cyber architecture for their web servers and networks.



**Vidit** is a Microsoft Certified Technology Specialist and a Microsoft Certified Professional with high level of expertise in handling server side operations based on windows platform. He has constantly been engaged in conducting training sessions and have trained more than 5000 individuals from 100 plus academic institutions, corporate houses and government organizations such as various IIT's, CAIRN India, ISACA, RICOH, Nagarro, Naukri.com, CBI, and RBI etc. He is an ideal to many young students in India who take up security as their career objective and a motivation to those who see and understand IT Security and its needs.



**Rahul** is a post-graduate with majors in Computer Science and has conducted, more than a hundred training sessions globally to his account. Being a cyber space researcher himself, Rahul can claim to have found critical vulnerabilities on websites of Intel, Sony, HP, Discovery Networks, TED and many more. He is also listed in BlackBerry Hall of Fame for his contributions to the organization. A published author of two books on information security. He has been covered extensively by the global media and is one of the most followed Indian Information Security Expert on various social media platforms



**Aman** is an avid security researcher with special interest in network exploitation and web application security analysis. He has an experience of over 3000 hours of training in the information security space and has trained over 5000 individuals personally till date. His student base ranges from personnel from the Indian Army, The Indian Navy, Intelligence Agencies, Special Task Forces, Criminal Investigation Departments of State Police, Enterprise IT teams and Engineering students among others. He has found multiple security flaws on websites like Google, Facebook, EA, MIT, National Geography, Blackberry among others.

### **Testimonials**

"The vision of Lucideus stands out from generic security industry entrepreneurs as a powerful intellect, with clarity of thought. I hope we can stay in contact, and I am interested to learn more about Lucideus."

Jim Noble
Senior Advisor, USA Department of Homeland Security
Former Global CIO, Merrill Lynch
Former Chief IT Strategy Officer, British Petrolium

"You guys are dynamites. You'll do very well "

C P Gurnani CEO Tech Mahindra

"The course on cyber security was well attended by the CBI officers and we have received positive feedback on the training conducted. The content was useful and the methodology was effective and it has enhanced the skills and knowledge of our team."

P V Hari Krishna Superintendent of Police The CBI Government of India

"Thank you for your though provoking interactive session on web security. It was extremely informative and provided valuable insights for comprehensive web security to our users. We look forward to build further relationship with your esteemed organization in areas of Cyber Security"

Brigadier J K Sethi
Deputy Director General
MISO, Dte General Information Systems
Indian Army
Ministry of Defence, Government of India

"I sincerely wish you and your team the very best in spreading security consciousness in the persons who are lucky to have come across your existence. I also want to acknowledge the excellent resources your organization possess to help bridge gaps in cyber 'combat-readiness' requirements/services for the government and the legal agencies."

Commander S Srivastava
Secretary
NESC
Indian Navy
Ministry of Defence, Government of India

### Lucideus Advisors &

### **Board Of Studies**

Dr. Dheeraj Sangi – Dean, IIT Kanpur

Mr. Felix Mohan – ex CISO Bharti Airtel, ex IT Head Indian Navy

Mr. Mahesh Mahajan – ex EVP, TCS & Global Delivery Head, HCL

Prof. N. K. Goval - President, CMAI

Mr. Nandkumar Saravade – ex Director, Cyber Security, Citi Bank India

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Dr. S. S. Goyal - Director, Cisco, USA

Dr. S. S. Mantha - Chairman, AICTE

Mr. Yogesh Kochar – Director, Microsoft India

#### **Our Corporate Clients**

## On WSPT and IT Risk Assessment Front

Lucideus has worked with multiple fortune 500 companies in providing critical and timely support for their cyber security needs.

#### Some of the clients of Lucideus include

3 of the top 5 IT Companies of the World

2 of the Largest Global Private Banks

2 of top 5 Oil and Gas Organizations of India

1 of top 5 Intelligence Agencies of the World

World's **3**rd Largest Railway Network

4 of the top 5 e-Commerce Websites of India

Top 2 Financial institutions of India

4 of top 5 PSU Banks of India

6 Different Ministries of Government of India

# On Training and IT Security Skill Enhancement Front.

Lucideus has trained individuals and IT teams from leading banks, various cyber cells and top university across the globe

# Lucideus has been featured in

ВВС		CNBC	CNBC TV18	NOTV
INDIAN EXPRESS	MONEY INDICES	THE INDIAN REPUBLIC fields a largest notific quotifi news poral	<b>INDIA</b> TV	THE ECONOMIC TIMES
CENTRE INTERNET FOR & SOCIETY	THE HINDU	hindustantimes	THE TIMES OF INDIA	The Telegraph
<b>Entrepreneur</b>	DAILY NEWS & ANALYSIS	ABP -यूज़	Inc.	FINANCIAL Chronicle Herald Eribene
silicon <mark>india</mark>	live & THE WALL STREET JOURNAL	YOUR#STORY.IN	TECHVIEW/ASIA	BUSINESS INSIDER
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Lucideus Headquarters New Delhi C-17, Safdarjung Development Area, Hauz Khas, New Delhi - 110016 Lucideus Labs IIT Bombay 4th Floor, SINE KReSIT Building IIT Bombay, Powai Mumbai - 400076 Lucideus Regional Office Ahmedabad 205, 2nd Floor Shree Balaji Heights, C.G. Road Ahmedabad - 3800<u>01</u> Lucideus Regional Office Kolkata 390 A, Jodhpur Park, Kolkata - 700068

www.lucideus.com | info@lucideustech.com | +91 11 26569899

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