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**SAINTGITS COLLEGE OF APPLIED SCIENCES**

**VALUE ADDED COURSES 2021—22**

# **AN INTRODUCTION TO CYBER ATTACKS AND SECURITY**



**PRINCIPAL**  
Saintgits College of Applied Sciences  
Kottukulam Hills, Pathamuttom P. O.  
Kottayam-686 532, Kerala

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## ABOUT THE COURSE

An Introduction to Cyber Attacks and Security enables the participants to understand the basic cyber security background. It also includes the history of Cybersecurity, its types and motives of various attacks.

## OBJECTIVES

- The learner will understand key terms and concepts in cyber-attacks
- Understand the Cyber security and cyber law.
- Understand the principles of web security and understanding of security policies (such as confidentiality, integrity, and availability).

THE COURSE IS TO  
EQUIP THE  
STUDENTS WITH  
LATEST  
TECHNOLOGY  
TRENDS IN  
CYBER ATTACK

## EXPECTED OUTCOMES

- Students will be able to understand the importance of cybersecurity and also get aware about the history and types of various cyber attacks.

## DURATION

30 Hrs.



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## FEATURES

We provide practical sessions for this course



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## RELEVANCE

This course is designed to equip the students with the latest cybersecurity features. also familiarize about various cyber attacks trending in the world.

## ADVANTAGES

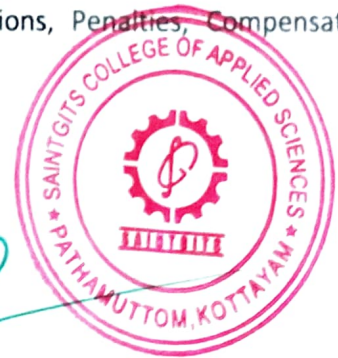
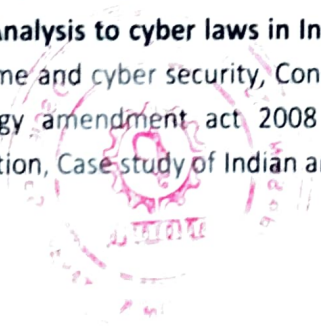
With cyber security measures implemented at home, you are well guarded against fraudulent transactions or data loss through malware etc. The following is a list advantages of cyber security for individuals: **Protection from identity theft, financial loss, customer data loss or impacts on business operations.**

## CONTENTS

**Cyber Attacks:** - History, Definition and characteristics, Factors affecting cyber-attacks, Classification - Syntactic and semantic attacks, Other cyber-attacks - Financial Scams, Hacking, Copyrighted content, Pornographic content, Virus, Cyber stalking, Hate crimes, Outcomes of cyber-attacks- Fraud, extortion, Malware, Pharming, Phishing, Spamming, Spoofing, Spying, Denial of Service, Distributed denial of service, Theft of hardware, Messaging abuse, Infrastructures as targets - Control systems, Energy, Finance, Telecommunications, Transportation, Water, Hospitals

**Cyber Security:** - Definition, History, Fundamentals- The CIA Triad, Introduction to cyber space and cyber security, Cyber security challenges, Importance of cyber security, Security principles, Types of cyber security - Critical infrastructure security, Application security, Network security, Cloud security, Internet of things (IoT) security, Applications of cyber security

**Critical Analysis to cyber laws in India:** - Introduction, Beginning of cybercrime era, Cybercrime in India, Cybercrime and cyber security, Consequences, How legal system deals with cyber terrorists, Information technology amendment act 2008 (ITAA 2008) – History Definitions, Penalties, Compensation and Adjudication, Case study of Indian and International cyber-attacks.



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# SAINTGITS COLLEGE OF APPLIED SCIENCES PATHAMUTTOM, KOTTAYAM

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**COURSE NAME : An Introduction to Cyber Attacks and Security**

**COURSE CODE:VCCAS012**

**Course objective:** The learner will understand key terms and concepts in cyber-attacks, cyber security and cyber law. The learner will understand principles of web security and understanding of security policies (such as confidentiality, integrity, and availability).

**Cyber Attacks:** - History, Definition and characteristics, Factors affecting cyber-attacks, Classification - Syntactic and semantic attacks, Other cyber-attacks - Financial Scams, Hacking, Copyrighted content, Pornographic content, Virus, Cyber stalking, Hate crimes, Outcomes of cyber-attacks- Fraud, extortion, Malware, Pharming, Phishing, Spamming, Spoofing, Spying, Denial of Service, Distributed denial of service, Theft of hardware, Messaging abuse, Infrastructures as targets - Control systems, Energy, Finance, Telecommunications, Transportation, Water, Hospitals. **(8 hours)**

**Cyber Security:** - Definition, History, Fundamentals- The CIA Triad, Introduction to cyber space and cyber security, Cyber security challenges, Importance of cyber security, Security principles, Types of cyber security - Critical infrastructure security, Application security, Network security, Cloud security, Internet of things (IoT) security, Applications of cyber security. **(10 hours)**

**Critical Analysis to cyber laws in India:** - Introduction, Beginning of cybercrime era, Cybercrime in India, Cybercrime and cyber security, Consequences, How legal system deals with cyber terrorists, Information technology amendment act 2008 (ITAA 2008) – History Definitions, Penalties, Compensation and Adjudication, Case study of Indian and International cyber-attacks. **(14 hours)**

**Reference Books: -**

1. Fundamentals of Cyber Security  
Bhushan/Rathore/Jamshed  
BPB Publications: First edition (2017)
2. Information Security and Cyber Laws  
Gaurav Gupta, Sarika Gupta  
Khanna Publications: First edition (2019)



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Roll No	Name of Student	Month Date Hour	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	9	9	9	9	9	10	11	12			
			7	7	8	14	14	15	21	21	22	28	28	29	5	5	6	12	12	13	14	20	10	13	15	20	27	29	4	29	30
			5	6	5	5	6	5	5	6	5	5	6	5	5	6	5	5	6	5	5	6	5	5	5	5	5	5	5	5	5
1	Abhinand K		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
2	Abin Oommen		A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
3	Adhithya Dev		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
4	Akhil P Anil		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
5	Alan John Joseph		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
6	Alan James		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
7	Amal Krishnan		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
8	Ananthalakshmi K S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
9	Ansaba R B		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
10	Archana Krishakumar		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
11	Arjun.Kb		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
12	Ashwin S Pillai		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
13	Athul Biju Abraham		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
14	Ayanaa Sherin A		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
15	Devika G		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
16	Devika P S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
17	Farzeen Fathima Firoz		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
18	Fathima Rasheed		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
19	Gibin Skaria Philip		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
20	Gokul G		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
21	Harithamol K H		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
22	Ibinu Thayib		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
23	Jacob Varghese		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
24	Jayakrishna S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
25	Jayalakshmi M		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
26	Jeffy Pramod Philip		Cancelled																												
27	Jeswin James		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
28	Jewel George		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
29	Jewel Jose		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
30	Jewel Tiju Thomas		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

*Handwritten signature*



Roll No	Name of Student	Month	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	9	9	9	9	9	9	10	11	11	12	
		Date	7	7	8	14	14	15	21	21	22	28	28	29	5	5	6	12	12	13	19	20	10	13	15	20	27	29	4	29	30	20
		Hour	5	6	5	5	6	5	5	6	5	5	6	5	5	6	5	5	6	5	5	5	5	5	5	5	5	5	5	5	5	5
31	ilu Elsa Jacob		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
32	ishone Saij		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
33	lithu Varghese Jacob		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
34	lobel John James		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
35	Kamal Nath		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
36	Karthik J		A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
37	Keerthana Rishi		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
38	Kevin Shaji Gomez		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
39	Kiran Simon Sagi		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
40	M S Ravishankar		A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
41	Manjima Sree		A	A	A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
42	Meghana Raj		X	X	A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
43	Merlin Mathew		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
44	Midhulesh Murali		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
45	Mohammed Bilal P.S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
46	Mohasina Mohammed		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
47	Navya Ann Jacob		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
48	Neha Seirah Biju		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
49	Nikhil Jacob Kurian		X	X	A	A	A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
50	Nithin Mathew		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
51	P S Sam		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
52	Pratibha Ann Jayesh		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
53	Raisa Ann Vessly		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
54	Revathy P		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
55	Rohan Ioseph		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
56	Roshan Thomas		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
57	Sachin C Varughese		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
58	Sanjay Saij		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
59	Shiju Koshy Varghese		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
60	Sony Abraham		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
61	Soyal Abraham Mathew		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
62	Sruthy Suresh		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
63	Syam Varghese Mathew		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
64	Tinu Varghese		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
65	Vasudevan Nampootheri		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
66	Veena Vinod		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
67	Vijay C H		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
68	Savanth Saij		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

*Am R. J.*

