Department of Computer Science and Engineering

Workshop on

Cyber Security Awareness Session

Date: 02/02/2023

Resource Person

Mr. Amalendu Pattali A

Consultant

Cyber Stratergy and Governance

Mrs. Vanajakshi B H

Programme Manager

Awareness and Communication

What is Cyber Security?

Cyber security is the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks. It's also known as information technology security or electronic information security. The term applies in a variety of contexts, from business to mobile computing, and can be divided into a few common categories.

What is Network security?

Network security is the practice of securing a computer network from intruders, whether targeted attackers or opportunistic malware.

The scale of the cyber threat

The global cyber threat continues to evolve at a rapid pace, with a rising number of data breaches each year. A report by RiskBased Security revealed that a shocking 7.9 billion records have been exposed by data breaches in the first nine months of 2019 alone. This figure is more than double (112%) the number of records exposed in the same period in 2018.

Medical services, retailers and public entities experienced the most breaches, with malicious criminals responsible for most incidents. Some of these sectors are more appealing to

cybercriminals because they collect financial and medical data, but all businesses that use networks can be targeted for customer data, corporate espionage, or customer attacks.

With the scale of the cyber threat set to continue to rise, global spending on cybersecurity solutions is naturally increasing. Gartner predicts cybersecurity spending will reach \$188.3 billion in 2023 and surpass \$260 billion globally by 2026. Governments across the globe have responded to the rising cyber threat with guidance to help organizations implement effective cyber-security practices.

In the U.S., the National Institute of Standards and Technology (NIST) has created a cyber-security framework. To combat the proliferation of malicious code and aid in early detection, the framework recommends continuous, real-time monitoring of all electronic resources.

The importance of system monitoring is echoed in the "10 steps to cyber security", guidance provided by the U.K. government's National Cyber Security Centre. In Australia, TheAustralian Cyber Security Centre(ACSC) regularly publishes guidance on how organizations can counter the latest cyber-security threats.

Types of cyber threats

The threats countered by cyber-security are three-fold:

- 1. **Cybercrime** includes single actors or groups targeting systems for financial gain or to cause disruption.
- 2. **Cyber-attack** often involves politically motivated information gathering.
- 3. **Cyberterrorism** is intended to undermine electronic systems to cause panic or fear.

So, how do malicious actors gain control of computer systems? Here are some common methods used to threaten cyber-security:

Malware

Malware means malicious software. One of the most common cyber threats, malware is software that a cybercriminal or hacker has created to disrupt or damage a legitimate user's computer. Often spread via an unsolicited email attachment or legitimate-looking download, malware may be used by cybercriminals to make money or in politically motivated cyber-attacks.

There are a number of different types of malware, including:

Virus: A self-replicating program that attaches itself to clean file and spreads throughout a computer system, infecting files with malicious code.

- **Trojans:** A type of malware that is disguised as legitimate software. Cybercriminals trick users into uploading Trojans onto their computer where they cause damage or collect data.
- **Spyware:** A program that secretly records what a user does, so that cybercriminals can make use of this information. For example, spyware could capture credit card details.



ACS COLLEGE OF ENGINEERING

Accredited with NAAC 'A' Grade, National Board of Accreditation(NBA) & HLACT (UK) #207, Kambipura, Mysore Road, Bengaluru - 560 074, Karnataka

DEPT. OF COMPUTER SCIENCE & ENGINEERING



Organizing Workshop on **Cyber Security Awareness** Session



Resource Persons

Dr. A.C. Shanmugam B.A. LLB. FIMSA.FRCPS (Glasgow, UK) Chairman, RRGI



Sri. A.C.S Arun Kumar B.Tech (Hons)., LMISTE., MIET.,(UK)., LMCS. Vice Chairman, RRGI

Mr. Amalendu Pattali A Consultant Cyber Strategy & Governance

Mrs. Vanajakshi B H Programme Manager Awareness and Communication

Dr. S.Vijayanand., M. Tech, Ph.D. **Executive Director, RRGI**

Sri. C.N.Seetharaman., I.A.S.(Retd.) Chief Executive Officer, RRGI

Dr. S.Jeyabalan., Ph.D Special Officer, RRGI

Principal, ACSCE

Dr. M.S.Murali Dr. S.Selvanandan Vice Principal, ACSCE

Dr. Senthil Kumaran T Dean - Research, Program Organiser

Dr. V. Mareeshwari Prof. & HOD, Dept. of CSE

Date: 2nd Feb 2023 Time: 10:45AM Venue: ACSCE Auditorium













EO#	EVENT OUTCOMES
EO1	Explain Phishing and Identity Theft
EO2	Justify the need of computer forensics
EO3	Illustrate Tools and Methods used on Cybercrime

EO-PO Mapping

PO's Attained: PO1,PO2,PO3,PO5,PO6, PO8,PO9

PSO's Attained: PSO3

Event Coordinator HOD