## $2 A$

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## DEPT OF COMPUTER SCIENCE AND ENGINEERING:

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## CIRCULAR

All the students of $2 / 4$ CSE - A are informed that there will be a seminar titied "Web Technologies and Cyber Security" by A. Aditya of $2 / 4$ CSE-B 316126510122 on $16^{\circ} \mathrm{Feb}$, 2018. The venue is C . Classroom at $1: 40 \mathrm{PM}$.

All the students must attend the seminar. Attendance will be taken during the event.




## Seminar on Web Technologies and Cyber Security

voer Security or information technology Security is a field within information technology woiving the protection of computer systems and the prevention of unauthorized use or changes r access of electronic data. It deals with the protection of software, hardware, networks and is nformation. Due to the heavy reliance on computers in the modem industry that store and ransmit an abundance of confidential information about people, cyber secunly is a critcal unction and needed insurance of many businesses, It also protects computer systems from theft or damage.

## Common Vulnerabilities

Vulnerabilities in Cybersecurity system can come from many different factors. Most of these center around any inherent faults within the system itselt, how easy it would be for a cyber attacker to break through any securities the system may have set up, and/or how easy it is for the cyber attacker to use the fault in the system to their advantage. One of the most common faults found in systems that can be abused by attackers is when a system is too complex. The more detalied a system becomes, the harder it is for cybersecurity to cover all the flaws. Thus, creates more opportunities for attacks to make their mark. Also, whenever user input is a variable, there can be ways into a system. This is because it is difficult for a programmer to predict and account for all possible inputs from a user. Attackers could affect the system depending on their inputs which would allow them to exploit the system further.

## Denial of service attaciks

Deniat of service (Dos) attack is a type of cyber attack that floods a network with multiple requests of information with the purpose of shutting down or disrupting services of a host connected to the internet. It may also prevent users of a service running through the targeted server or network.

## Direct-access attacks

This form of vulnerability is when a system is physically accessed by an unauthorized user. This allows the user to make modifications or attach backdoor hardware or software in order to access the system remotely. The unauthorized user can also make complex changes to the system due to having direct access to the hardware.

## Pharming

Pharming is a form of online fraud that redirects upers from legitimate website's traffic to another fake site. Hackers can use pharming by using tocloth that redirects users to a faket sith. The victimized

users will go to a fake website without noticing it is fake. Hackers use this method to steal personal data from user' computer. Hacker exploits the DNS server or called Der poisoning that makes users think the fake sites are legitimate.

## Phishing

Phishing is an email that claims to be a genuine business in an attempt to swindle the user into surrendering sensitive information. The personal information that they receive is then used to steal their identity and can result in a loss of financial freedom.

## Social Engineering

Social engineering involves human interaction and the manipulation of people to give up confidential information. The purposes for this technique include fraud, system access or information gathering. it is easier for someone to fool you into giving them a password or bank information than it is for someone to try hacking in order to get the information.

## Other Vulnerabilities

There are other vulnerabilities and ways that hackers can gain access of a system. They can use backdoors which is a different method of accessing a computer or network that bypass the authentication and security, Spoofing can also be used to trick a receiver by pretending to be a known source to the receiver. Private escalation can be used to elevate an attacker's access level which will give them access to every file on a computer just like a root user can. A more complicated one is clickjacking. This is when an attacker inverts the user's clicks to buttons or links that take the user to another website.

The Author discussed the above topics and the seminar ended with thanks.

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