COMMUNICATION: IOT SECURITY

NATIONAL COMMUNICATION DAY

BY FAHAD *******

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COMMUNICATION:

COMMUNICATION ALWAYS HAVE A SENDER AND RECEIVER PLUS THE MESSAGE. WHICH MEANS A PROCESS OF TRANSMITTING INFORMATION BETWEEN DIFFERENT INDIVIDUALS OR DEVICES.

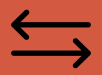
WHAT IS IOT ?

- IOT = INTERNET OF THINGS

IS A NETWORK OF DEVICES LIKE SMART TV , SMART REFRIGERATOR , LAPTOP THAT ARE CONNECTED TO THE INTERNET IN A SIMPLE WAYS IS A NETWORK OF CONNECTED THINGS AND PEOPLE OVER THE INTERNET

• IOT COMMUNICATION LAYERS

Application Layer: layer that connect to other layers to send data over the network for example preforming process to process communication.



Transport Layer : uses of set oof protocol to have an end to end message transfer .

Network Layer : transmission of internet protocol (IP) datagrams from source network to the destination network like IPv4 and IPv6.

Link Layer : transmission and transport of data physically like optical fiber ,ethernet ,wifi.

IOT SECRUITY ISSUES:

- Weaks passwords : unchangeable credentials , easily brute forced.
- Unsecure network services: insecure network services running on the thing (device).
- Unsecure interfaces : vulnerable web , mobile applications and backend Api.
- Unsecure software and firmware: firmware contains sensitive info and unsecure and unencrypted updates for example weak symmetric tokens.

• IOT SECRUITY SOLUTIONS

- Open vulnerability disclosure program.
- Security monitoring & management.
- Data encryption.
- Secure firmware and updates.
- Long term support.
- Embedded Firewall.

THANK YOU FOR WATCHING