

## COMPUTER NETWORKS

### DEFINITIONS

- **Computer Network:** Group of interconnected devices.
- **Telecommunication:** Communication at a distance.
- **Data:** Processed information. (in this context)

### TYPES OF NETWORKS

#### GEO COVERAGE

- **Personal Area Network (PAN):** Very small area, e.g., Bluetooth.
- **Local Area Network (LAN):** Small area, high speed, e.g., home, office.
- **Metropolitan Area Network (MAN):** City-wide network, e.g., cable TV network.
- **Wide Area Network (WAN):** Large area, e.g., internet.

### TOPOLOGIES

Arrangement of nodes in a network.

- **Bus:** Single central cable (bus). Easy to install, but hard to troubleshoot.
- **Star:** Central hub with nodes connected. Easy to manage, but hub failure affects all.
- **Ring:** Nodes connected in a circle. Data travels in one direction, but a break can disrupt the network.
- **Mesh:** Every node connected to every other. High redundancy, but expensive.