

# SISTEM KOMUNIKASI OPTIK

- **MATERI 14**
- **APLIKASI OPTICAL WIRELESS COMMUNICATION I**
- D3 Teknologi Telekomunikasi – Fakultas Ilmu Terapan



# APLIKASI OPTICAL WIRELESS COMMUNICATION

**1** Aplikasi Ultra Short Range OWC

**2** Aplikasi Short Range OWC

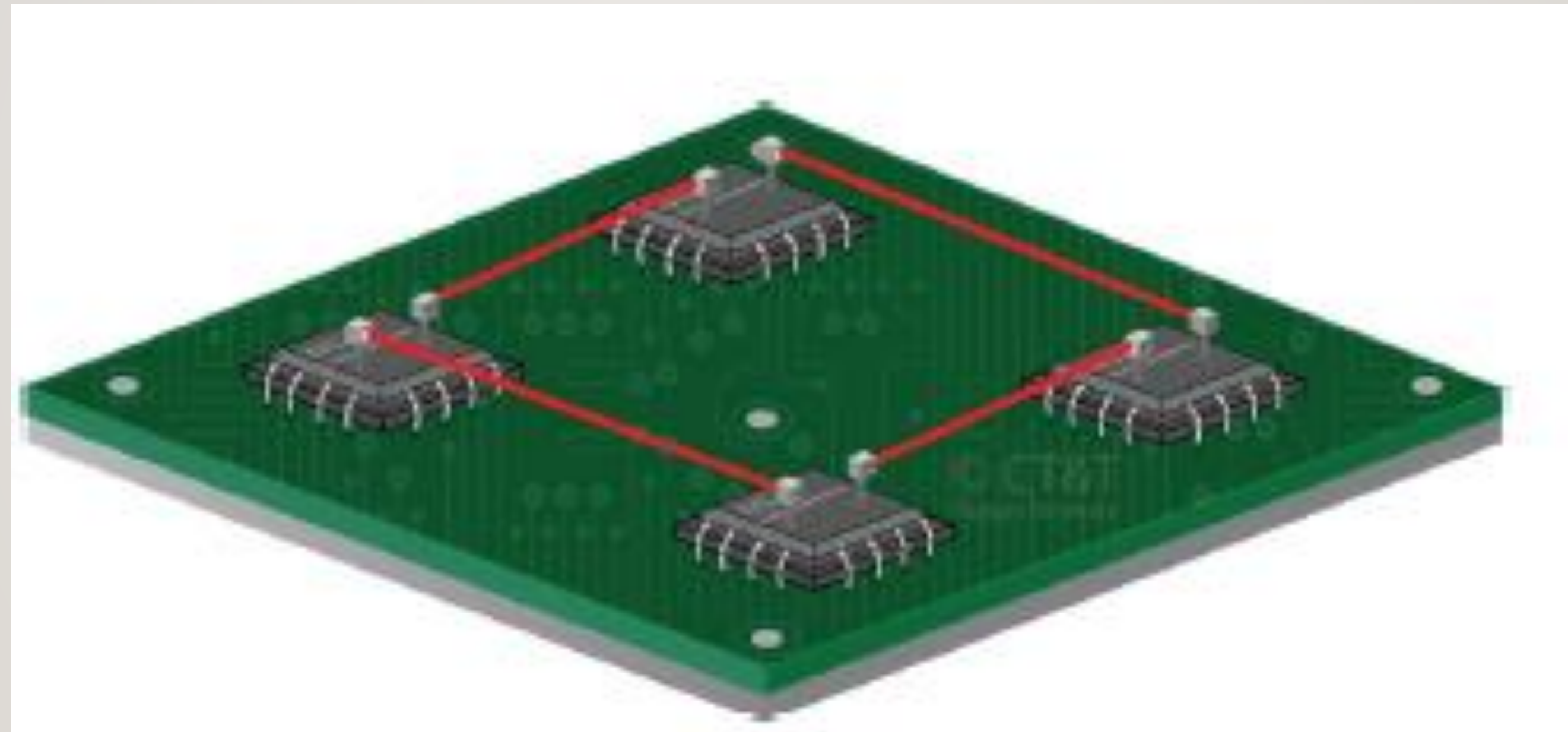
**3** Aplikasi Medium Range OWC

**4** Aplikasi Long Range OWC

**5** Aplikasi Ultra Long Range OWC

## ULTRA SHORT RANGE OWC

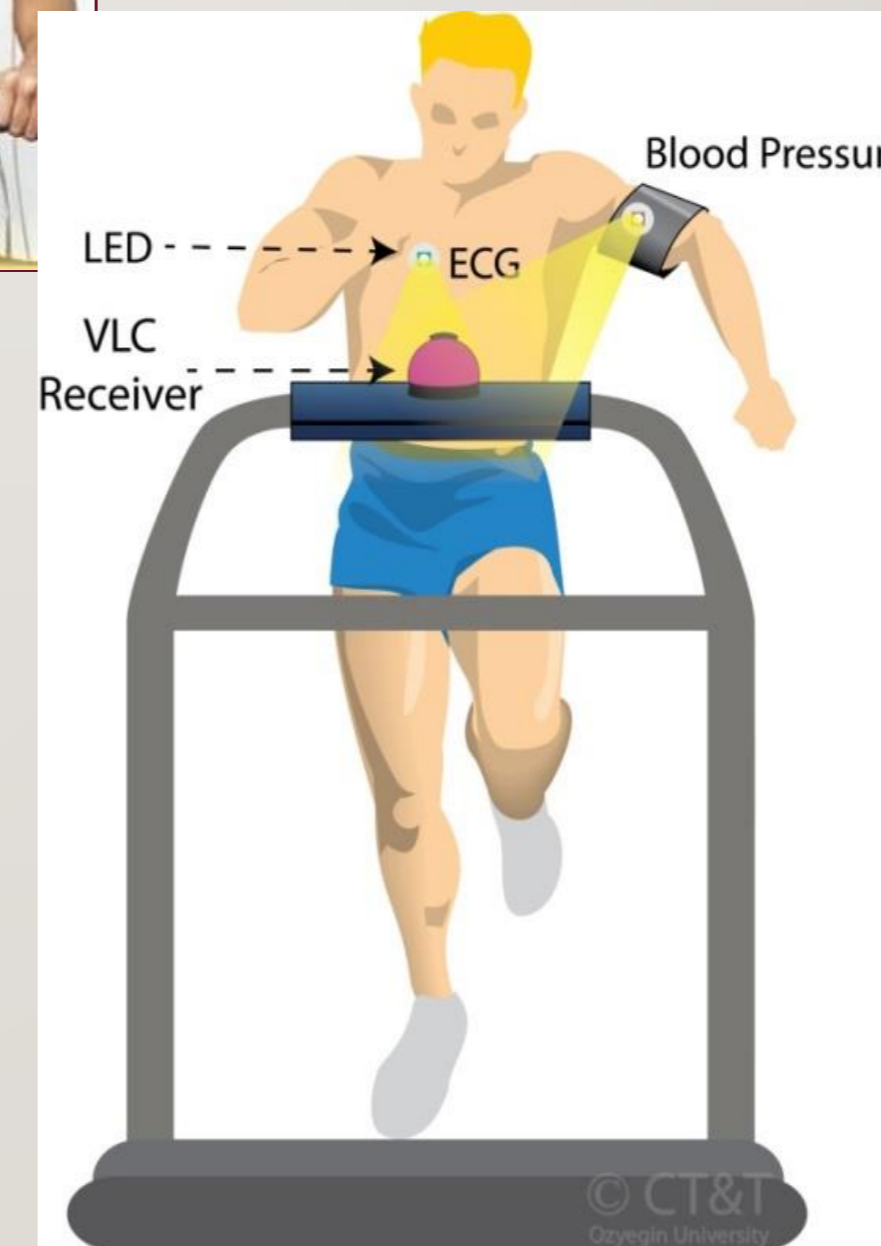
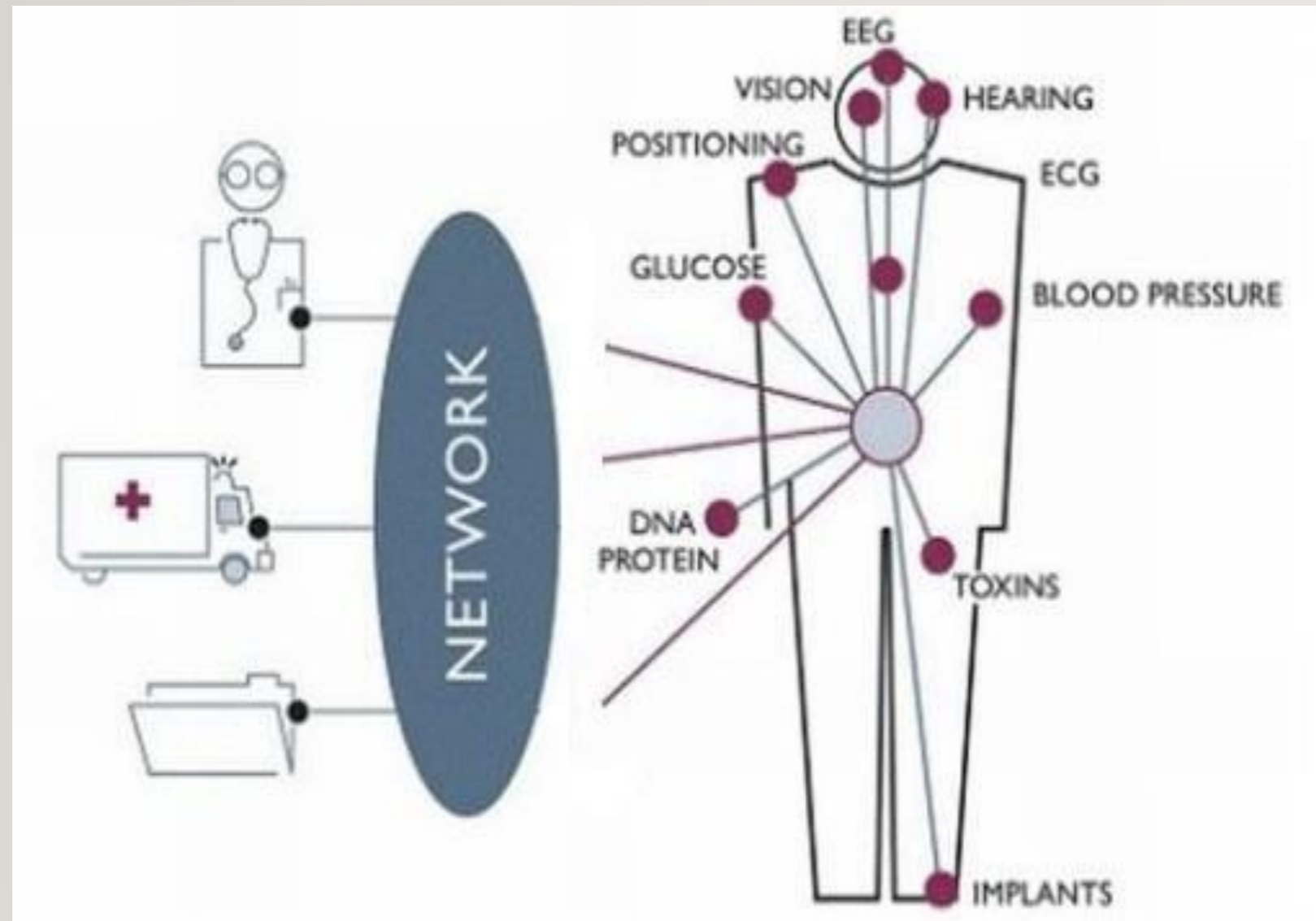
- ❑ Bandwidth Tinggi
- ❑ Latensi Yang Rendah



Gambar. Free Space Optical Interconnect

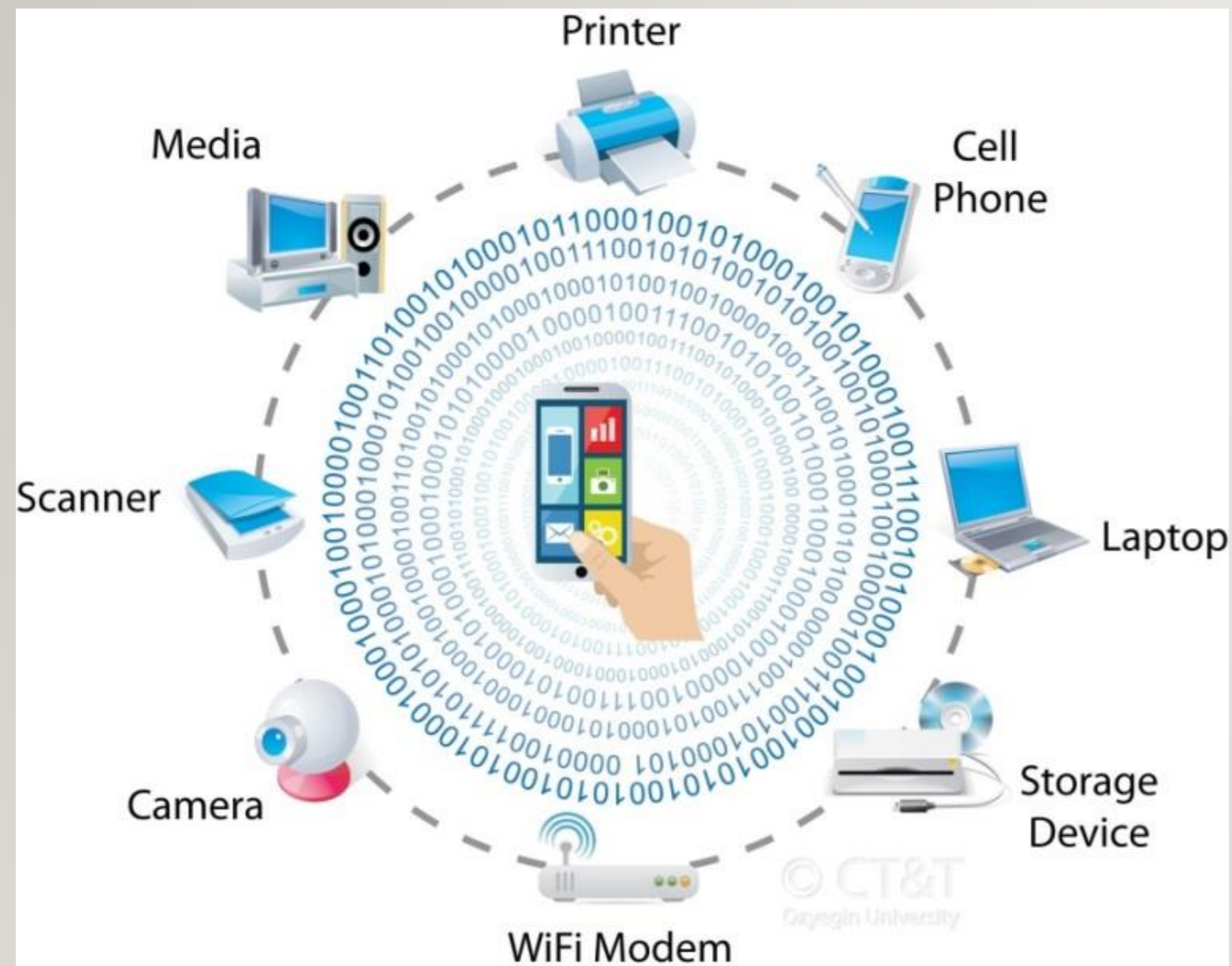
# SHORT RANGE OWC

## ▶ 1. Optical Wireless Body Area Network (WBAN)



# SHORT RANGE OWC

## ▶ 2. Optical Wireless Personal Area Network (WPAN)



- ❑ Giga-IR ~ 1.25 Gb/s (limited mobility)
- ❑ 10Gb/s IR under development
- ❑ IEEE 802.15.7: Enhanced mobility but limited data rate
- ❑ **Smart phone communication using visible light** (phone-to-phone, phone-to-TV, phone-to-vending machine, phone-to-POS machine, phone-to-ATM etc)



# TERIMA KASIH

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