

A summary of WirelessHART: Data Link Layer and MAC

Presented by Muhammad Zaaqib Ur Rehman, Daniel Sekyere-Asiedu

WirelessHART is a vital protocol for industrial automation and process control, offering reliable, scalable, and secure wireless communication. The Data Link Layer (DLL) ensures data reliability through packet framing, error detection, and encryption. The Medium Access Control (MAC) layer uses TDMA and frequency hopping to manage data transmission and minimize interference. These features support real-time data collection, enhance safety, reduce costs, and improve operational efficiency, making WirelessHART essential for boosting productivity and asset management in various industrial settings.