COVERTEL
TELECOMMUNICATIONS GROUP

Mobile Communication Technologies

5G and Beyond

COURSE DESCRIPTION

This one-day course provides an understanding of the mobile communication technologies in use today. It covers technologies from 4G/5G and wireless broadband through to the upcoming 6G.

The course builds the technology foundation that teams need for day-to-day operational work or research programs.

WHO SHOULD ATTEND?

Policy workers, telecommunication professionals, marketing executives, academics and stakeholders requiring an understanding of mobile communication technologies.

COURSE OBJECTIVES

By the end of this course participants will be able to:

- Explain the principles of mobile communication
- Describe the architecture of mobile networks
- Describe the technology development from 1G to 6G
- Explain mobile network deployment
- Describe NZ’s mobile industry and the related legislation

SOME COURSE BENEFITS

- Provide technical support and troubleshooting for mobile networks
- Hold credible conversations around mobile technology with peers and customers
- Plan telecommunication strategy for the organisation
- Leverage mobile communication technology in day-to-day operations and business
- Gain insights into the economic development and business opportunities in the telecommunication industry

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FORMAT

1 day, interactive classroom-based or live online via Zoom.

Maximum attendees: 12 per course.

CONTENT

Morning

- The basics of wireless communication
- Evolution of mobile technology (1G thru 6G)
- Radio spectrum for mobile technology and regulation
- Mobile network architecture
  - Core
  - Access
  - Backhaul network
- Network sharing

Afternoon

- Core network
  - Function block
  - Network slicing
  - VoLTE/5G
- Radio access network
  - Base station and antenna
  - RAN technologies in 5G
    - TDD/FDD
    - Beamforming
    - MIMO
    - Carrier aggregation etc.
- Backhaul network

Assessment (Optional for in-house courses)

- Instructor led interactive quizzes
- Multiple choice written test

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