

EEE 6109 Wireless Communication

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Summary

Wireless communication has had a huge impact on human existence. While the term wireless communication could be used to mean any means of communication occurring without wires including smoke signals, drum beats and horns, modern use refers to communication using electromagnetic waves without wires. In this course we will study modern wireless communication systems including their design, channel modeling and modern transceiver schemes.

Course content

1. Wireless propagation
2. The wireless channel
3. Multiple access schemes
4. Multiple input multiple output systems
5. Diversity

Course books

I will use the following books as references:

- Molisch, A. F. (2012). Wireless communications (Vol. 34). John Wiley & Sons.
- Goldsmith, A. (2005). Wireless communications. Cambridge university press.
- Tse, D., & Viswanath, P. (2005). Fundamentals of wireless communication. Cambridge university press.

Assessment

There will be two continuous assessment tests during the semester and a final exam. The dates will be announced at a later date. Also, regular homework will be assigned. **Academic Honesty** is expected. Any work handed in must be your own. Discussion among students is encouraged but answers must be written up individually.

Office hours

By appointment.