

İşaret İşleme

Modulasyon-H11CD2

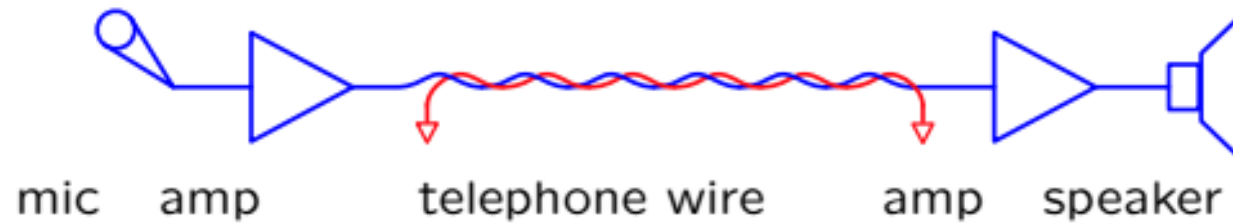
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Modulasyon

Modulation

Applications of signals and systems in communication systems.

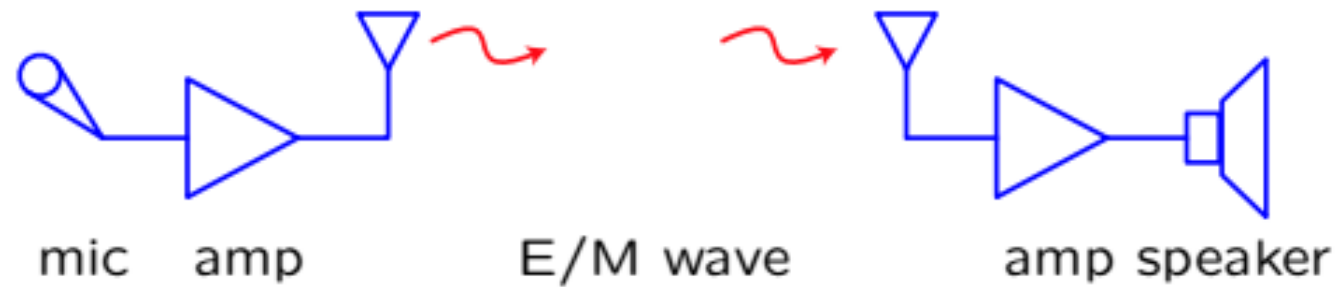
Example: Transmit voice via telephone wires (copper)



Works well: basis of local land-based telephones.

Wireless Communication

In cellular communication systems, signals are transmitted via electromagnetic (E/M) waves.



For efficient transmission and reception, antenna length should be on the order of the wavelength.

Telephone-quality speech contains frequencies from 200 to 3000 Hz.

How long should the antenna be?



For efficient transmission and reception, the antenna length should be on the order of the wavelength.

Telephone-quality speech contains frequencies between 200 Hz and 3000 Hz.

How long should the antenna be?

1. $< 1 \text{ mm}$
2. $\sim \text{cm}$
3. $\sim \text{m}$
4. $\sim \text{km}$
5. $> 100 \text{ km}$

Bu ders notu için faydalanılan kaynaklar

EEEN343 Sinyaller ve Sistemler **Ders Notları**

MIT OpenCourseWare
<http://ocw.mit.edu>

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