

NOC: Satellite Communication Systems - Video course

COURSE OUTLINE

Satellite communication is a form of wireless communication that covers large area and long distance using satellites as repeaters. Course prerequisite is digital communication. In this course the participants will get the basic technical knowledge of orbital dynamics, subsystems used in space segment and ground segment, power and bandwidth requirement, effect of the transmission medium, other impairments and techniques to mitigate them, regulatory aspect and standards, and some value added examples.

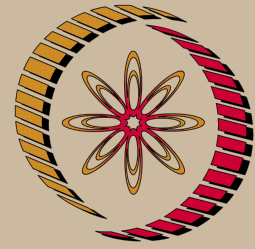
COURSE DETAIL

Week	Topics
1	Orbit.
2	Space segment.
3	Ground segment, propagation effect.
4	Link Budget.
5	Link Budget, Multiple Access.
6	Multiple Access, Capacity enhancement.
7	Nonlinearity, Synchronization.
8	TCP over satellite, ITU regulations, Standards and examples.

References:

Reference Material

1. Satellite communications, 2nd edition, by T. Pratt, C. W. Bostian, J. E. Allnut, Publisher: John Willey and sons
2. Satellite Communications Systems: systems, techniques and technology, 5th edition, by G. Maral, M. Bousquet, Z. Sun, Publisher: John Willy and sons



NP-TEL

NPTEL

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Electronics & Communication Engineering

Pre-requisites:

Knowledge on Digital Communication

Coordinators:

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