

Information Theory and Coding

Written by Administrator

Saturday, 07 November 2009 07:27 -

Subject Code

:

06EC65

IA Marks

:

25

No. of Lecture Hrs/ Week

:

04

Exam Hrs

:

information rate of mark-off source.

6 Hours

Unit - 2

Source Coding: Encoding of the source output, Shannon's encoding algorithm. Communication Channels, Discrete communication channels, Continuous channels.

6 Hours

Unit - 3

Fundamental Limits on Performance: Source coding theorem, Huffman coding, Discrete memory less Channels, Mutual information, Channel Capacity.

6 Hours

Unit - 4

Channel coding theorem, Differential entropy and mutual information for continuous ensembles, Channel capacity Theorem.

6 Hours

7 Hours

UNIT - 8

Convolution Codes, Time domain approach. Transform domain approach.

7 Hours

Text Books:

1. **Digital and analog communication systems** – K. Sam Shanmugam, John Wiley, 1996.
2. **Digital communication** – Simon Haykin, John Wiley, 2003.

Reference Book:

1. **ITC and Cryptography** – Ranjan Bose, TMH, II edition, 2007.

2. **Digital Communications** – Glover and Grant; Pearson Ed. 2nd Ed 2008.