



COURSE DATASHEET

Semester:	2016/17/1
Course:	Information and Communication Theory
Code:	VEMIIR3112I
Responsible department:	Department of Electrical Engineering and Information Systems
Department code:	MIVIR
Responsible instructor:	Dr. István Vassányi

Course objectives:

To provide the students with an introductory-level and application oriented overview on Information and Communication Theory.

Course content:

1. source coding, entropy
2. LZ code, Huffman code, arithmetic code
3. applied source coding
4. introduction to channel coding
5. binary linear block codes, coding theorems
6. Hamming codes
7. cyclic codes
8. convolutional codes

Requirements, evaluation and grading:

Students must pass a written examination which is a test with 25 simple questions. Marks are as follows. 0-50% failed, 50-60% (2), 60-70% (3), 70-85% (4), 85-100% (5)

Required and recommended readings:

- lecture notes: <http://vassanyi.ginf.hu/info/infojegyzet.pdf>
- Richard B. Wells: Applied Coding and Information Theory for Engineers, Prentice Hall, 1999.
- Steven Roman: Introduction to Coding and Information Theory, Springer, 1997.
- R.B.Ash: Information Theory, Dover Publications, 1990.