Title Introduction to Telecommunications	Code 1010324281010320377
Field	Year / Semester
Electrical Engineering	4/8
Specialty	Course
Electric and Computer Systems of Vehicles	core
Hours	Number of credits
Lectures: 1 Classes: - Laboratory: 7 Projects / seminars:	- 8
	Language
	polish

### Lecturer:

Ph.D., D.Sc., Eng. Konrad Skowronek, Associate Prof.

phone: +48 61 665 27 88

e-mail: konrad.skowronek@put.poznan.pl

#### Faculty:

Faculty of Electrical Engineering

ul. Piotrowo 3A 60-965 Poznań

tel. (061) 665-2539, fax. (061) 665-2548 e-mail: office\_deef@put.poznan.pl

## Status of the course in the study program:

Obligatory subject, Faculty of Electrical Engineering, Field: Electrical Engineering, Extramural studies

# Assumptions and objectives of the course:

Knowledge of theoretical and practical subjects related to the ideas, techniques and principles of operation of telecommunications systems.

#### Contents of the course (course description):

Social importance of telecommunications, types of telecommunications systems, analog and digital signals, spectral representation of signals, analog modulation techniques, pulse modulation and pulse - code modulation PCM, methods of spread spectrum, types and properties of line codes, electrical and optical transmission media, connection and connectionless modes, multiplexing methods: TDM, FDM, WDM.

## Introductory courses and the required pre-knowledge:

Basic knowledge of informatics and mathematics.

## Courses form and teaching methods:

Lectures, supported by slides, laboratory exercises.

#### Form and terms of complete the course - requirements and assessment methods:

Written examination, credits for laboratory exercises.

### **Basic Bibliography:**

Additional Bibliography: