

## B.Sc. Eng. Programmes

## Electronics and Telecommunications (E&T)



### Programme description

Graduates obtain knowledge in electronics, telecommunication systems, communication and computer networks, mobile communications and multimedia. They are able to program in C, C++, C# and Matlab to solve several communication and electronic tasks. They are familiar with optoelectronic circuits and systems, TV, antennas and microwaves. They are able to effectively configure computer and wireless networks. During their studies the students get acquainted with computer networks and Internet technologies, radio and mobile communications, communication systems, multimedia and consumer electronics. The graduates are prepared to work at industry and services associated with modern electronics, communications and informatics. The BSc studies are finalized with the diploma thesis on a selected topic in electronics and telecommunications. Finally, the graduates are directly prepared for M.Sc. studies in E&T.

Due to university participation in the UE Erasmus+ Exchange Programme, the best students can spend semester abroad at several universities in foreign countries (e.g. Germany, France, Finnland, Spain, Italy, Portugal, Greece, Turkey) where they can master their language competencies, professional skills and learn a way of life and studies in a different country.

### Course summary:

#### Semester 1

- Mathematics mathematical analysis and algebra
- Algorithms in E&T with Matlab
- Introduction to ICT networks
- Physical Training
- Metrology
- Foreign language

#### Semester 2

- Physics
- Metrology (cont.)
- Foreign language (cont.)
- Programming in C
- Electrical circuits
- Signal theory
- Elective course (EC) in economy

#### Semester 3

- Electromagnetic waves
- Semiconductor devices
- System theory
- Probabilistic methods in E&T
- Programming in C++
- Digital systems design
- Foundations of telecommunications

#### Semester 4

- Digital system design (cont.)
- Foundations of telecommunications (cont.)
- Digital signal processing
- Computer networks
- Telecommunication networks
   Optotelecommunications
- Microprocessors
  - Microprocesso

#### Semester 5

- Optotelecommunications (cont.)
- Microprocessors (cont.)
  Introduction to multimedia
- Programmable digital circuits
- EC in digital communication systems
- Simulation techniques
- EC in CAD techniques
- EC in object oriented programming

#### Semester 6

- EC on advanced topics in networks
- Multimedia communications
- Radio communication
- EC in measurement systems
- EC in data bases
- EC in network operating systems
   EC in synchronous networks
- EC in topics in video processing
- Internship

#### Semester 7

- EC on optical and switching networks
- EC on programming of mobile terminals
- EC on optoelectronics and photonics
- EC on wireless local area networksDiploma seminar



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# Electronics and Telecommunications (E&T)

University	Poznan University of Technology Poznan, POLAND	
Degree to be obtained	Bachelor of Science, Eng.	
Programme website	https://www.put.poznan.pl/en	
Contact	International Relations Office Piotrowo 5, room 101 61-138 Poznań, Poland	(
Phone	+48 61 665 3544	_
Fax	+48 61 665 3956	_
E-mail	study@put.poznan.pl	
Language of instruction	English	
ETCS points	210	
Duration	3.5 years (7 semesters)	
Programme begins	end of September	
Programme ends	end of February	
Deadline for applications	middle of July	E
Education requirements	English language – level B2 (Common European Framework), Secondary school certificate which entitles its holder to apply to higher education institutions. Full list of the required documents is available at: https://www.put.poznan.pl/en	
Mode of instruction	Lectures, classes, laboratory classes, projects, internships, seminars	



