

# Information and Communication Technologies

Field of study: Electronics and Telecommunications



## Course summary:

### Preparatory semester\*:

- Telecommunication systems
- Digital signal processing
- Elective course (EC) on digital and wireless communication systems
- Introduction to programming in Matlab
- EC on Introduction to multimedia
- EC on communication networks and technologies
- Programming in C++

### Semester 1

- Selected topics in mathematics
- Numerical methods
- English/Polish language
- Information and coding theory
- Network management
- Mobile systems
- Multimedia systems
- Satellite navigation systems
- Optical fiber communication systems
- Practical placement (internship)

### Semester 2

- Optimization methods
- Telecommunications network design
- Programmable digital systems
- Advanced signal processing algorithms
- Workshop
- Elective courses – advances in subject areas: Transmission, Digital signal processing, Security

### Semester 3

- Elective courses – advances in subject areas: Computer networks, Modern telecommunications, Wireless communications
- Diploma seminar
- Diploma thesis

\* The 4-semester programme additionally has a 'preparatory' semester and is dedicated to the Bachelor-level diploma holders in subject areas other than electronics and telecommunications (e.g. general electrical engineering, computer science, physics, technical physics, mathematics, control engineering etc.).

## Programme description

Master studies in Electronics and Telecommunications (specialization: Information and Communication Technologies) last three or four semesters. The 3-semester programme starts at the end of February, whereas 4-semester studies start at the end of September.

The 3-semester programme version is meant for the B.Sc. graduates in the field of electronics and telecommunications exclusively (not in any other, related subject area).

The 4-semester programme additionally has a 'preparatory' semester and is dedicated to the Bachelor-level diploma holders in subject areas other than electronics and telecommunications (e.g. general electrical engineering, computer science, physics, technical physics, mathematics, control engineering etc.). Thus, 'preparatory' semester is mainly devoted to enhance and widen the student's knowledge in telecommunications and electronics and the curriculum following it, is identical to the 3-semester programme.

Every year a modified set of elective courses is approved by the faculty council, based on the lists of proposed courses as well as general students' preferences, related to the specializations run currently for the MSc programmes.

A graduate receives the degree of Master of Science in Electronics and Telecommunications, specialization Information and Communication Technologies (ICT). The M.Sc. graduates in electronics and telecommunications are prepared to perform research and development in the area of their education. They are prepared to work in R&D centres, telecommunications and electronics companies. They are also able to manage engineering teams involved in designing new equipment, networks, services, etc. They are ready to undertake doctoral studies.



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<b>University</b>	Poznan University of Technology Poznan, POLAND	
<b>Degree to be obtained</b>	Master of Science	
<b>Programme website</b>	<a href="https://www.put.poznan.pl/en">https://www.put.poznan.pl/en</a>	
<b>Contact</b>	International Relations Office Pl. M. Skłodowskiej-Curie 5 60-965 Poznan, Poland	
<b>Phone</b>	+48 61 665 3544	
<b>Fax</b>	+48 61 665 3956	
<b>E-mail</b>	<a href="mailto:study@put.poznan.pl">study@put.poznan.pl</a>	
<b>Language of instruction</b>	English	
<b>ECTS points</b>	90 (3-semester programme) or 120 (4-semester programme)	
<b>Duration</b>	1.5 years (3-semester programme) or 2 years (4-semester programme)	
<b>Programme begins</b>	end of February (3-semester programme) end of September (4-semester programme)	
<b>Programme ends</b>	end of June	
<b>Deadline for application</b>	end of November	for 3 sem. programme
	middle of July	for 4 sem. programme
<b>Education requirements</b>	English language – level B2 (Common European Framework), (3-semester programme): B.Sc. degree (or equivalent) in Electronics and Telecommunications exclusively (4-semester programme): B.Sc. degree (or equivalent) in electronics and telecommunications or in related study fields Full list of the required documents is available at: <a href="https://www.put.poznan.pl/en">https://www.put.poznan.pl/en</a>	
<b>Mode of instruction</b>	Lectures, classes, laboratory classes, projects, internships	

