Title	Code
Formal Languages	**1010331411010330615**
Field: **Computer Science**	Year / Semester: **1 / 1**
Specialty: **-**	Course: **core**
Hours: Lectures: **1** Classes: **-** Laboratory: **1** Projects / seminars: **-**	Number of credits: **3**
	Language: **polish**

Lecturer:

D. Sc. Eng. Jolanta Cybulka
Institute of Control and Information Enineering
tel. +48 61 6653724
e-mail: jolanta.cybulka@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 course, Faculty of Electrical Engineering, field Computer Science

Assumptions and objectives of the course:

-An introduction to the theory of formal languages and translation. Methods and tools of automatic text processing.

Contents of the course (course description):

-An introduction to the theory of formal languages. The notion of a formal language, Chomsky's classification of formal languages: regular languages and finite automata, context-free languages (including LL and LR languages) and push-down automata, monotonic languages and linear-bounded automata, recursively enumerable languages and Turing machines; attribute grammars. Semantics specification methods: operational and denotational. Fundamantals of the theory of translation (syntax-driven translations: syntax-driven definitions and translation schemes and their applications in the area of compiler building). Fundamentals of the C programmig. Text processing in AWK and Lex. Transducer generation method in YACC.

Introductory courses and the required pre-knowledge:

-Fundamentals of the algebra, set theory and formal logic. Fundamentals of the C programming.

Courses form and teaching methods:

-Lectures illustrated with multimedia presentations and laboratory exercises.

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

-Written test concerning theoretical foundations of formal languages and text processing.
-Written tests concerned with programming in AWK and Lex and the LR(0)-positions generating algorithm.

Basic Bibliography:

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Additional Bibliography:

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