Politechnika Krakowska
im. Tadeusza Kościuszki

Cracow University of Technology
Faculty of Electrical
and Computer Engineering

COURSE TITLE:	**Internet Technologies**
Institute/Division:	Department of Automation and Computer Engineering Faculty of Electrical and Computer Engineering
Course code:	E-IT
Erasmus subject code:	0610 Information and Communication Technologies (ICTs)
Number of contact hours:	45
Course duration:	1 semester (Spring/Summer)
ECTS credits:	6
Course description:	The course presents the basics of creating web applications using the Java and JavaScript programming languages. The main topics are the basic backend technologies with particular emphasis on the Java language, in particular the Servlet technology and JavaServer Pages (JSP). Later in the course, we'll move to Node.js along with Express.js and discuss the use of JavaScript as a backend technology. In addition, the basics of HTML and JavaScript will be presented at the very beginning. The topics of the lectures include: Website user behavior. Stages of creating websites. Website structure design. Cascading Style Sheets - CSS. JavaScript. DOM model. Java Servlet. Retrieving data from the user. Session tracking. JavaServer Pages. Attaching external elements. JavaBeans. JSP 2.0 Expression Language. AJAX, SJAX and jQuery. Node.js and Express.js. Laboratory exercises and individual projects used the acquired knowledge to build a simple website with mechanisms for authorizing and authenticating users and assigning permissions to various parts of the website.
Course type:	Lectures (20h), Laboratory (20h), Project (5h)
Literature:	Rhuan Rocha , João Purificação: *Java EE 8 Design Patterns and Best Practices*, Packt, 2018 Marty Hall, Larry Brown: *Core Servlets and JavaServer Pages*, Financial Times Prentice Hall, 2003 Steve Holzner, *Ajax Bible*, Wiley, 2007 Ethan Brown: *Web Development with Node and Express: Leveraging the JavaScript Stack*, O'Reilly Media, 2019.
Prerequisites:	Basic level of programming in Java
Assessment method:	Laboratory exercises, project and tests
Contact Person:	Damian Grela, Ph.D Eng., damian.grela@pk.edu.pl