DESCRIPTION OF STUDY MODULE*

Study programme	**Applied Informatics and Programming**		
Study module	**HYBRID MOBILE APPLICATION DEVELOPMENT**	**Credits in total**	**4**

Learning outcomes
- Manage to distinguish the hybrid mobile application from the local ones. - Aware of the working principles of hybrid applications.- - Manage to programme Ionic applications with AngularJS. - Manage to create new styles of Ionic platform using SASS. - Able to use Bower and Gulp. - Create hybrid mobile applications based on Ionic platform. - Manage to integrate mobile device components with a hybrid mobile application.
Aims of study module
The objective of the study subject is to teach students to develop hybrid mobile applications. At the end of the course, students learn to integrate the developed mobile applications with mobile device components and online service servers.
Annotation of a study module
The course provides students with the basics of programming language of hybrid mobile applications. Students study the differences between hybrid mobile applications and native ones. Furthermore, they are introduced to the Ionic platform applied to the development of hybrid mobile applications along with other tools, such as, Bower and Gulp used in developing the applications by means of Ionic. At the end of the course, attention is given to the use of mobile device components in a hybrid mobile application. Practical activities of the course develop students‘ practical skills in performing the assigned tasks and developing their project, namely a hybrid mobile application.
Topics of the subject
1. Introduction to hybrid mobile applications 2. Setting up Ionic working environment 3. Getting started with Ionic 4. Components of Ionic applications 5. Windows of Ionic application 6. Camera module 7. Online check module 8. Push notifications and local notifications
Procedure for assessment of knowledge and competences
Applicable ten-point scale and criterion-cumulative assessment scheme. Progress-check tests (PT1, PT2) consists of 0.15, project (P) (hybrid mobile application development) - 0.2 and 0.5 of the final exam (E) assessment score, which is calculated by the weighted average method. Subject uptake final rating is calculated only if all self-employment (individual homework) assignment and progress-check tests are assessed the positive point. F = PT1* 0.15+PT2*0.15+ P*0.2 + E * 0.5
Main literature
1. Jeremy Wilken (2015). *Ionic in action*. 320 p. 2. Panhale, Mahesh (2016). *Beginning Hybrid Mobile Application Development*. 222 p. 3. Rahat Khanna (2016). *Getting Started with Ionic*. 168 p.

* Short form