## THE DEVELOPMENT OF MOBILE APPLICATIONS AND OPEN-SOURCE FRAMEWORKS FOR TESTING

Olga Ristić<sup>1</sup>, PhD; Vlade Urošević<sup>1</sup>, PhD;

<sup>1</sup> Faculty of Technical Science, Čačak, SERBIA, <u>olga.ristic@ftn.kg.ac.rs</u>, <u>vlade.urosevic@ftn.kg.ac.rs</u>

Abstract: Today, a large number of people have mobile devices, so the development of mobile applications is becoming more intense. Since there is huge demand for mobile apps that need to be tested to provide good quality. Some companies lose customers and money due to poor quality of mobile applications. Testing of mobile apps are the most difficult task due to its varieties and different operating systems. Although there are simulators and emulators available but they only simulate the working of operating system and cannot test the core functionalities for the mobile device. There are many different open-source frameworks for testing mobile apps and in this paper will be presented three most popular (Appium, Robotium and Solendroid). Here are given the advantages and disadvantages of these tools and the ability to apply on different platforms. Depending on the usage and complexity of mobile applications, the selected framework for testing will also depend.

Keywords: mobile app, testing, open-source