**PowerSurface - Wireless Charging Technology for Mobile Devices**

Project ID: PoC6\_5\_27

Lead beneficiary: Faculty of Electrical Engineering, Computer Science and Inforamtion Technology Osijek

Project leader: Dr. Davor Vinko, Assistant Professor

Total project budget: 370,874.61 kn

Approved budget: 305,041.58 kn

Project duration: 15th July 2016 – 14th July 2017

Recognised centre: Tera Tehnopolis d.o.o.T, Osijek

PowerSurface is wireless charging technology for mobile devices (smartphones and tablets). Technology enables wireless charging on a surface which is significantly larger than the surface of the mobile device. Mobile device can be wirelessly charged on arbitrary section of active surface. Two or more devices can be charged simultaneously. The project includes development of a functional prototype that will demonstrate the technical feasibility and potential for implementation of the proposed technology.

The goal of project proposal is to prove a concept, i.e. proposed PowerSurface technology, by developing and making a functional prototype of a wireless charging system. Project activities cover analysis of wireless energy transfer, optimization and laboratory testing, followed by prototype development. At the same time, the electromagnetic compatibility and impact on human health will be continuously evaluated in concordance with legislation of the Republic of Croatia. Results of the evaluation during each project activity will be used to define guidelines leading to the development of a functional prototype.

Proof of concept is needed to demonstrate technical feasibility of functional prototype which satisfies the conditions prescribed by the legislation of the Republic of Croatia, the necessary technical specifications and customer requirements which will be defined through a market research study.

Expected results of the project proposal are prototype of wireless charging system for mobile devices which uses PowerSurface technology and conducted analysis, i.e. measurement of electromagnetic compatibility and impact on human health. System prototype will be implemented in home and business inventory.