

Open Contents Modules Available for E-Learning Multimedia Cartography and Location Based Services

The screenshot shows the homepage of the CartouCHE website. The top navigation bar includes links for Home, About CartouCHE, CartouCHE Modules, Mobile Courses, Contact, and Online. Below this is a section titled 'About' which provides a brief history of the project. A large graphic illustrates the 'Concept' of the project, showing three interconnected hexagons representing different modules. To the right of the concept, text describes the modular nature of the project. At the bottom, there are three cards for 'Module 1 Multimedia Cartography', 'Module 2 Location Based Services', and 'Module 3 3D Applications', each showing a preview of its content.

*Fig. 1. CartouCHE homepage
Sl. 1. Početna stranica CartouCHE*

Swiss Virtual Campus (SVC) is a federal program, which began in 2000th and was completed in 2008th. Its goal was to improve Internet-based learning in Swiss higher education institutions. One of the projects within the SVC was dedicated to cartography: *CartouCHE* (Cartography for Swiss Higher Education). Project partners were the Institute of Cartography Swiss Federal Institute of Technology Zurich (ETH), Department of Geography University of Zurich and Institute of Geomatics Engineering Professional School Nordwestschweiz. The results of the project are three modules for e-learning: *Multimedia Cartography*, *Location Based Services* and *3D Applications*. Modules are designed for learning at graduate level (Master level). Since 2008 modules *Multimedia Cartography* and *Location Based*

Services are available free online under a Creative Commons Licence. This means that after registration programs are free to download, distribute and adapt, but only for non-commercial purposes. It is only necessary to quote *CartouCHE* as the author. These two modules can be downloaded at <http://www.e-cartouche.ch> (Fig. 1). Contents can be viewed in different browsers (e.g. Internet Explorer, Safari, Firefox, Opera), operating under different operating systems (e.g. Windows, Linux, Mac) and other than English are available on a dozen other languages.

Multimedia Cartography module consists of ten chapters, and *Location Based Services* module of five chapters. Each chapter is scheduled for one hour lecture.

Multimedia Cartography module consists of the following ten chapters:

1. Introduction to Multimedia Cartography
2. Computer Graphics
3. Internet Techniques and Web Formats
4. Planning Multimedia Projects
5. Data Storage and Structure
6. Cartographic Design for Screen Maps
7. Navigation - Concepts and Tools
8. Graphical User Interface - Layout and Design
9. Animation and Interactivity
10. Standardisation and Web-services

and *Location Based Services* module of the following five chapters:

1. Foundations of Location Based Services
2. Techniques for LBS Cartography
3. Designing Maps for LBS
4. Solutions for LBS Maps
5. WebPark: LBS in Action.

Fig. 2 shows the initial section of interactivity in the first chapter Introduction to Multimedia Cartography. From academic year 2010/11 on, lectures on *Multimedia Cartography* at the Master level at the Faculty of Geodesy, University of Zagreb, will be accompanied by the mentioned module for multimedia cartography.

Nedeljko Frančula
Miljenko Lapaine

Moduli otvorenoga koda za e-učenje multimedejske kartografije i lokacijskih usluga

Švicarski virtualni kampus (Swiss Virtual Campus – SVC) je savezni program, započet 2000. i završen 2008. kojemu je cilj bio unapređenje internetski utemeljeno učenja u švicarskim institucijama visokog obrazovanja. Jedan od projekta u sklopu SVC-a bio je posvećen kartografiji: *CartouCHe (Cartography for Swiss Higher Education)*. Partneri na projektu bili su Institut za kartografiju Švicarske visoke tehničke škole u Zürichu (ETH), Odjel za geografiju Sveučilišta u Zürichu i Institut za geometričko inženjerstvo Stručne škole Nordwestschweiz. Rezultat rada na projektu su tri modula za e-učenje: *Multimedia Cartography*, *Location Based Services* i *3D Applications*. Moduli su predviđeni za učenje na diplomskoj razini (*Master level*). Od 2008. moduli *Multimedia Cartography* i *Location Based Services* slobodno su dostupni na internetu pod *Creative Commons Licence*. To znači da se nakon registracije programi mogu besplatno preuzeti, distribuirati i adaptirati, ali samo za nekomercijalne svrhe. Jedino je nužno uvek navesti kao autora *CartouCHe*. Navedena dva modula mogu se preuzeti na adresi <http://www.e-cartouche.ch> (sl. 1). Sadržaji se mogu pregledavati na različitim preglednicima (npr. Internet Explorer, Safari, Firefox, Opera), rade pod različitim operativnim sustavima (npr. Windows, Linux, Mac) i osim na engleskom dostupni su na desetak drugih jezika.

Modul *Multimedia Cartography* sastoji se od deset poglavlja, a modul *Location Based Services* od pet poglavlja. Svako poglavljje predviđeno je za jedno-satno predavanje.

Modul *Multimedia Cartography* sastoji se, u prijevodu na hrvatski, od ovih deset poglavlja:



Fig. 2. *Interactivity homepage*

Sl. 2. Početna stranica o interaktivnosti

1. Uvod u multimedejsku kartografiju
2. Računalna grafika
3. Internetske tehnike i web-formati
4. Planiranje multimedejskih projekata
5. Pohrana i struktura podataka
6. Kartografsko oblikovanje karata na ekranu
7. Navigacija – koncepti i alati
8. Grafičko korisničko sučelje – oprema i oblikovanje
9. Animacija i interaktivnost
10. Standardizacija i web-servisi

a modul *Location Based Services* od ovih pet poglavlja:

1. Osnove lokacijskih usluga
2. Tehnike za kartografirane lokacijske usluge
3. Oblikovanje karata za lokacijske usluge
4. Rješenja za karte lokacijskih usluga
5. WebPark: lokacijske usluge u akciji.

Na sl. 2 je početna stranica odjeljka o interaktivnosti u sklopu prve poglavljaja *Uvod u multimedejsku kartografiju*. Od ak. god. 2010/11 na Geodetskom fakultetu Sveučilišta u Zagrebu predavanja iz kolegija *Multimedajska kartografija* na diplomskom studiju održavat će se s pomoću opisanog modula za multimedejsku kartografiju.

Nedjeljko Frančula
Miljenko Lapaine