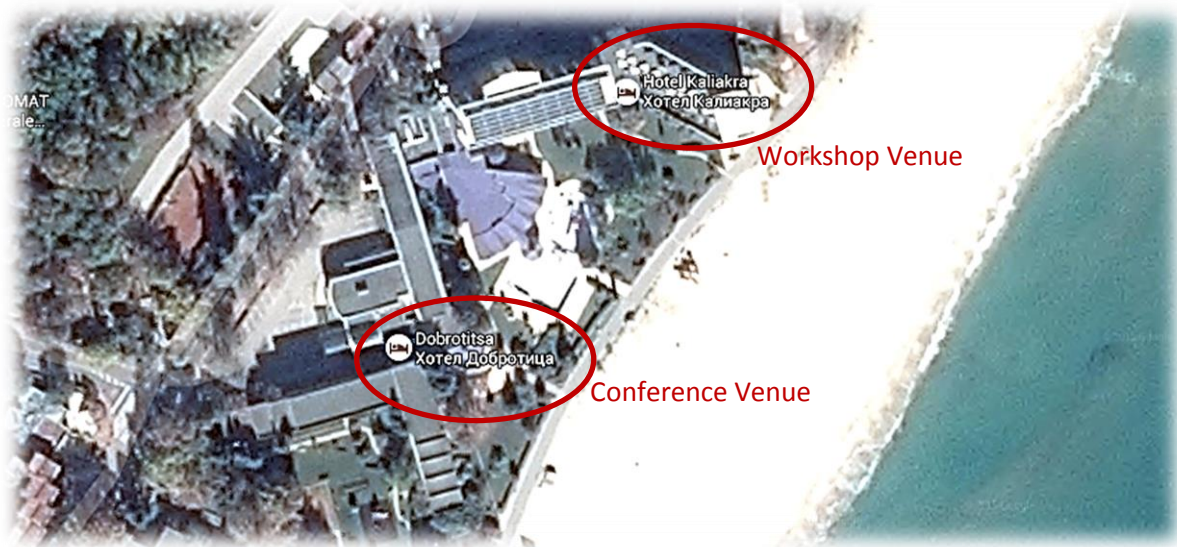


# Interactive workshop on “Designing and Conducting User Studies”

We invite you to participate in a workshop on designing and conducting user studies experiments that will be **held in conjunction with the 6<sup>th</sup> International Conference on Cartography and GIS in Albena, Bulgaria:** <http://iccgis2016.cartography-gis.com/>. The workshop will take place on **Wednesday 15<sup>th</sup> of June 2016** in the **Kaliakra Hotel**. This hotel is located right beside the conference venue:



While aimed primarily at (post)graduate students, the workshop may also be of interest to established researchers who are new to user studies. Since our main target audience are (post)graduate students, we would like to keep the costs for this workshop to a minimum. Thanks to the support of the local organisers and the ICA, this workshop is **free of charge for conference attendants**. We also strongly advise you to book your accommodation in the workshop’s venue, as this is an all-inclusive hotel. This means that coffee breaks and lunch also included for hotel guests. **Registration** for this workshop is mandatory and can be done while registering for the conference itself.

## **Preliminary Program:**

8.30 - 9.00 *Registration/setup*

9.00 - 9.15 Introduction to the day & the work of the ICA Commission

9.15 - 10.30 Module 1 - Methods and techniques of use, user and usability research

10.30 - 11.00 *Coffee break*

11.00 - 12.15 Module 2 – Qualitative vs. Quantitative user research

12.15 - 13.45 *Lunch*

13.45 - 15.00 Module 3 – Eye Tracking

15.00 - 15.30 *Coffee break*

15.30 - 16.45 Module 4 – Thinking Aloud

16.45 - 17.00 Wrap-up and final words

## **Contents:**

The workshop consists out of **four modules**, each focussing on a specific topic regarding cartographic user research. The first two modules give general information and tips & tricks regarding how to set-up and conduct user research. The last two modules we will dive into some specific methods. For this workshop we attribute a **high importance to the interaction** with our participants. Especially during the last two modules the participants can take part in an experiment and best practices will be demonstrated.

- **Module 1** (Artemis Skarlatidou, University College London )  
*Methods and techniques of use, user and usability research in geo-information processing and dissemination.*  
The first module will introduce you to use, user & usability research in geo-information processing and dissemination. Reasons for doing such research are to understand and explain how GI tools work for their users and to design more usable tools. In this first module, the focus will be on the latter. The concept of User Centred Design will be presented and an overview will be given of the most commonly applied research techniques, along with tips & tricks on how and when to use them. Experiences will be shared in interactive sessions.
- **Module 2** (Robert Roth, University of Wisconsin Madison )  
*Quantitative versus Qualitative user research: selecting the right approach.*  
When setting up a user study in cartography and GIS, it can be a difficult task to select the right method from the long list of available options. Methods commonly are divided between quantitative and qualitative approaches, with an increasing recommendation to mix these methods across a research or development project. This module will introduce and characterize quantitative versus qualitative methods, and discuss their similarities and differences across four aspects of experimental design using a series of case study examples: (1) participants, (2) materials, (3) procedure, and (4) analysis. From this module, you will have a better understanding of how to select and administer an appropriate method for your user study.
- **Module 3** (Kristien Ooms, Ghent University)  
*When and how to apply Eye Tracking?*  
The module will explore one of the use and user research techniques in greater detail: Eye Tracking. The goal of this module is to show this technique up-close, with demonstrations and hands-on exercises. In this context, we will focus on the different aspects of eye tracking research in the geo-domain. We will show how to set and experiment, taking into account the tips & tricks from previous modules. Next we will demonstrate how to conduct an eye tracking experiment, taking into account special characteristics of eye tracking devices (e.g. light conditions). Finally, we will show how the data can be analysed (e.g. using sequence analysis).
- **Module 4** (Corné van Elzakker, University of Twente)  
*An Introduction to Thinking Aloud.*  
Thinking aloud has been considered as a very valuable usability engineering method by several leading authors. Also in the domains of cartography and geo-information science it is now frequently applied in qualitative user research, often in combination with other methods. During this interactive module you will get familiar with the idea behind this method: What are the pros & cons of applying this method? How do you set up a think aloud research project? What hardware and software do you need to record and process the data? How do you analyze the data? How do you combine thinking aloud with other methods (e.g. eye tracking)?