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Department of Geography

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Open PhD student position, human-centered mobile indoor navigation guidance

The GIScience Center at the Department of Geography, University of Zurich (UZH) invites applications for a PhD studentship in the areas of location-based services and indoor navigation. The position will start on **01 April 2018**, or as soon as possible thereafter. The successful candidate will be hired on a 1-year scholarship, which will be extended to the nominal 4-year PhD period after positive evaluation. Salary is commensurate with the pay scale of the Swiss National Science Foundation.

The PhD student will be working under the supervision of Dr. Haosheng Huang with support from Prof. Dr. Robert Weibel, and hosted in the GIS Unit, which is part of the GIScience Center at the University of Zurich. This PhD project aims to develop a methodology and computational model to provide human-centered navigation guidance to aid wayfinding in complex indoor environments. Empirical studies will be employed to examine how people find their ways in indoor environments, and understand their information needs during indoor wayfinding. These empirical findings will then be computationally formalized and implemented to enable mobile indoor navigation systems to automatically generate wayfinding instructions equivalent to what humans would give. Possible improvements to the existing indoor data models will be made. A clear set of initial research goals has been identified, but the successful candidate will be expected to develop and refine these further.

The GIScience Center hosts several research groups working on diverse topics including location-based services, digital cartography, movement analysis, language and space, geographic information retrieval, uncertainty modeling, geovisual analytics, and spatial cognition. For more information, see http://www.geo.uzh.ch/gis.

We are looking for a highly motivated, independent person with a passion for science. We offer outstanding working conditions, a stimulating environment, and the high quality of life in Zurich. Applicants are required to have completed a Masters level degree in a relevant field such as geographic information science (GIScience), computer science, or geomatics. The PhD project will employ both empirical and computational methods. Familiarity with research in GIScience and computer science, in particular location-based services, data modelling, spatial cognition, and mobile human-computer interaction will be an advantage. Basic programming skills, as well as a willingness to develop these further are a prerequisite. Experience in web and mobile application development is considered a plus. You will also have a very good standard of written and spoken English.

Send your curriculum vitae, a motivation letter, academic transcripts, and the contact details of two referees **in a single PDF document, and with subject "PhDIndoorLBS",** to Bettina Schädle at bettina.schaedle@geo.uzh.ch, by **01 December 2017**.

For informal thematic inquiries about this position, please contact Dr. Haosheng Huang, Email: haosheng.huang@geo.uzh.ch (subject: PhDIndoorLBS), or by phone: +41-44-63-56534.