

<b>Masaryk University</b>	
<b>Faculty</b>	Faculty of Science
<b>Procedure field</b>	Cartography, Geoinformatics and Remote Sensing
<b>Applicant</b>	doc. RNDr. Petr Kubíček, CSc.
<b>Applicant's home unit, institution</b>	Faculty of Science, Masaryk University
<b>Board members</b>	
<b>Chair</b>	prof. RNDr. Petr Dobrovolný, CSc. <i>Faculty of Science, Masaryk University</i>
<b>Members</b>	prof. Ing. Lena Halounová, CSc. <i>ČVUT, Praha</i> prof. RNDr. Vít Voženílek, CSc. <i>PřF UP Olomouc</i> prof. Mgr. Jaroslav Hofierka, Ph.D. <i>Univerzita Pavla Jozefa Šafárika v Košiciach</i> Univ. prof. i. R. dipl. Ing. Dr. Wolfgang Kainz <i>Universität Wien</i>

### Evaluation of the applicant's scholarly/artistic qualifications

Petr Kubíček graduated in physical geography and cartography from the Faculty of Science of Masaryk University (formerly Jan Evangelista Purkyně University – UJEP) in 1987. He started his professional career as a lecturer and research fellow in geomorphology in the Department of Geography in 1988. In 1992, he defended his PhD (CSc.) thesis focused on geomorphological mapping. His research focus shifted with the foundation of the Laboratory of Geoinformatics and Cartography (LGC) in 1992. After several national (SPANS, IDRISI) and international (GITA) formal training programmes in GIS theory and technology, he concentrated his research on 3D terrain modelling and analysis, digital mapping, and geographic information infrastructures. From 1995 to 2000, applicant worked on several projects focusing on GIS development in the Czech Republic (GACR), transfer of GI/GIS technologies, cross-border cooperation, and data warehouses (Panel GI, CREDO, Well GIS). In addition to his basic research programme, substantial part of his scientific career made applied science. He served as the land reform project's technical manager (Breclav Regional Government), which involved digital cadastral data acquisition, master plan management, and GIS implementation.

He shortly interrupted his academic career between 2001–2004, when he was working for several commercial companies in the field of GIS and cartography. He worked in telecommunications as a specialist for the planning and operation of wireless mobile phone networks (STAR 21 Networks) and later as a consultant in geoinformation solutions for public administration and international projects (Intergraph).

Petr Kubíček returned to the Department of Geography in 2005 as a project manager for the research project, "Dynamic geovisualization in emergency management". He defended his habilitation thesis, titled "Selected aspects of geospatial data uncertainty visualisation," in 2012.

During his career, Petr Kubíček served as a principal investigator or co-investigator of more than 30 projects in both basic and applied research including GACR, TACR, EU FP and Horizon projects. In addition, he implemented several commercial applied research projects (defence research).

His main research foci include geographic data quality and uncertainty visualization, adaptive and contextual cartography, and 3D and extended reality within the broad field of digital cartography and geoinformatics. His interdisciplinary orientation is also documented in his cooperation with cognitive scientists on user studies and in the development of research methods and techniques. These collaborations have resulted in several cross-disciplinary projects (GAMU, TACR ÉTA) focused on user issues and spatial configuration in indoor navigation.

Recently (April 2021) he has 36 records in WoS database (18 research articles), 42 publications in Scopus, 11 scholarly book chapters. In total 191/217/722 citations (without self-citations) in WoS/Scopus/Google scholar. H index is 10 (WoS) and 11 (Scopus). Moreover, his applied research has resulted in several certified methodologies, research reports, and software for 3D visualization of base maps.

**Conclusion:** The applicant's scholarly/artistic capabilities **meet** the requirements expected of applicants participating in a professor appointment procedure in the field of Cartography, Geoinformatics and Remote Sensing.

### Evaluation of the applicant's pedagogical experience

Petr Kubíček has had extensive pedagogical experience since 1988. At the beginning of his academic career, he taught several introductory courses on physical geography and cartography (Geomorphology, Soil geography, Landscape Development in the Holocene, and Geomorphological Mapping) and was responsible for supervising fieldwork.

After returning to the Department of Geography, he initiated a new course on Cartographic Visualization of Health Data. Currently, he delivers several introductory courses for the Bachelor degree – Geographic Cartography, Geoinformatics, and Cartographic Modelling. He acts as a guarantor of the Masters programme in Geographic cartography and Geoinformatics and delivers three courses (GIS in Public Administration, Selected Issues on Cartographic Visualization, GIS for Social Geography). Recently, in cooperation with partners from public administration

and commerce, Petr Kubíček introduced the Geotechnology camp – a short-term, project-based course focused on real world GIS applications and data.

As a co/author, he has prepared chapters for several textbooks. He also actively participated in the localisation of the GIS Body of Knowledge for the EU environment. In 2019, the International Cartographic Association invited him to co-author a chapter for the Body of Knowledge on the topic of Virtual and Immersive Environments.

Beginning with the GAMU interdisciplinary research projects in 2016, Petr has been cooperating with the Faculty of Education focusing on innovative educational methods. These collaborations have focused on the use of extended reality and user-centric development of educational materials for primary and high schools.

He has successfully supervised 31 BSc and 28 MSc students. In the last six years, the diploma thesis topics were connected with ongoing research projects. He currently supervises seven PhD students; one student has successfully defended her thesis.

It should be stressed that his teaching is positively evaluated in student surveys. Outside the university, he works as a lecturer of lifelong GIS courses organized by the Czech Association for Geoinformation (CAGI).

**Conclusion:** The applicant's pedagogical capabilities **meet** the requirements expected of applicants participating in a professor appointment procedure in the field of Cartography, Geoinformatics and Remote Sensing.

#### **Evaluation of the applicant as a respected and recognized scholarly or artistic figure in a given field**

Petr Kubíček is a scholar combining both basic and applied research with organizational skills. He has repeatedly confirmed his ability to successfully implement and lead scientific projects at the national and international levels. He has a proven track of project-based cooperation with other universities in the Czech Republic (UPOL, VŠB, ZČU, MENDELU) and Europe (Leuven, TU Vienna). Besides these achievements, applicant has served as a consultant for the Ministry of Interior on the topics of spatial data infrastructure and geoinformation strategy development.

Applicant is a founding member of the Laboratory on Geoinformatics and Cartography (LGC 1992). His sense of innovation and new solutions is reflected in establishing the Laboratory of Virtual Geographic Environments in 2020. In his interdisciplinary research, he supervises the Centre for Experimental Psychology and Cognitive Sciences (CEPCoS), a workplace for empirical research exploring multiple aspects of human interaction with modern technologies, especially concerning the human-computer interaction (HCI) paradigm.

Applicant is currently a co-chair of the Commission on Cognitive Issues in Geographic Information Visualization of the International Cartographic Association. At the national level, he serves as a vice-chair of NEMOFORUM and represents the Cartography and Geoinformatics section on the main board of the Czech Geographical Society.

Apart from his scientific and teaching skills, Petr possesses strong organisational abilities. He has organised conferences and workshops both on the national and international levels beginning with Eurocarto in 1987. Together with Prof. Konečný, he has actively co-organised the GIS Brno series, GI4DM, and many other conferences and meetings. In the 2005–2009 period he also organised the Geoinformation in Public Administration conferences on behalf of Czech Association for Geoinformation (CAGI).

Petr Kubíček develops experience from the commercial sphere through his extensive cooperation with private sector firms in his applied research programme. He serves as a reviewer for both the Technological Agency and The Ministry of Education SK.

**Conclusion:** The applicant **is** a respected and recognized scholarly figure in his/her field. The applicant **has** made a significant contribution to the development of his/her field. The applicant **constitutes** a leading figure in his/her field of scholarship or research.

### Secret vote results

Voting took place: electronically

Number of board members		5
Number of votes cast		5
of which	in favour	5
	against	0

### Board decision

Based on the outcome of the secret vote and following an evaluation of the applicant's scholarly or artistic qualifications, pedagogical experience and role as a respected and recognized scholarly or artistic figure, the board hereby submits a proposal to the scientific board of the Faculty of Faculty of Science of Masaryk University to **appoint the applicant professor** of Cartography, Geoinformatics and Remote Sensing.

In Brno on 13.04.2021

prof. RNDr. Petr Dobrovolný, CSc. ....