

## CURRICULUM VITAE

## Personal details and the date of the CV

*Niina Maria Käyhkö (née Vuorela)*

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UTU Research portal: [https://research.utu.fi/converis/portal/Person/788557?auxfun=&lang=en\\_GB](https://research.utu.fi/converis/portal/Person/788557?auxfun=&lang=en_GB)

Date of the CV: 24.11.2021

## Degrees

18.12.2001. Doctor of Philosophy, Geography, University of Turku, 20014 Turku, Finland

16.1.1997. Master of Science, Geography, University of Turku, 20014 Turku, Finland

28.12.2008. Title of Docent in Landscape Geography, University of Turku, 20014 Turku, Finland

## Language skills

Finnish Native language

English Listening: Proficient user (C2), Reading: Proficient user (C2), Writing: Proficient user (C2), Speaking: Proficient user (C2)

Swedish Fluent (asetus 442/87)

French Listening: Independent user (B1), Reading: Independent user (B1), Writing: Independent user (B1), Speaking: Independent user (B1)

Swahili Listening: Independent user (B1), Reading: Basic user (A2), Writing: Basic user (A2), Speaking: Independent user (B1)

## Current employment

1.5.2021 -, Professor in Geospatial Research, University of Turku, Department of Geography and Geology

## Previous work experience

1.1.2018-30.4.2021, Associate Professor in Geospatial Research, University of Turku, Department of Geography and Geology (tenure-track). Stage IV.

1.9.2012- University Lecturer in Geoinformatics, University of Turku, Department of Geography and Geology (permanent position, on leave since 1.1.2018), Stage III.

1.9.2007-31.8.2012, Senior Assistant in Geoinformatics (yliassistentti, fixed term 5-year position), University of Turku, Department of Geography (on leave of absence until 31.12.2007).

1.1.2006-31.12.2007, Post-doctoral researcher (Academy of Finland, project SA8109210), University of Turku, Department of Geography.

1.9.2002-31.8.2007, Senior Assistant in Geoinformatics (yliassistentti, fixed term 5-year position), University of Turku, Department of Geography. (on leave of absence 1.1.2006-31.8.2007).

1.1.2002-31.8.2002, Senior Assistant in Geoinformatics (yliassistentti, fixed term substitute), University of Turku, Department of Geography.

1.9 – 31.12.2004, Post-doctoral researcher (MFA funded project), University of Turku, Department of Geography.

1.1.1997-31.12.2001, Doctoral candidate (Academy of Finland, SA37121), University of Turku, Department of Geography.

## Career breaks

Parental leave in 2005 and in 2009.

## Research funding and grants

I have been leading 20 research, education, development cooperation and consultancy projects since 2005 at the University of Turku. These projects have circa 7 million € total budget. The most significant ones during the last 10 years are:

- 2020-2024 (48 months), Project: Social innovations in Geo-ICT education at Tanzanian HEIs for improved employability (GeoICT4e), Ministry for Foreign Affairs of Finland (HEI-ICI programme, education & capacity building), Total budget 2 404 206 € , Consortium PI Niina Käyhkö
- 2019-2021 (33 months), Project: Tanzania Resilience Academy, The World Bank (commissioned consultancy & capacity building), Total budget 600 000 USD, PI Niina Käyhkö
- 2018-2020 (36 months), Project: Baltic SatApps, Interreg Baltic Sea Region, European Union (Societal interaction), Total Budget 2 M€, UTU Geography share 109 167€, PI of UTU/Geography share, Niina Käyhkö

- 2017-2020 (37 months), Project: Geospatial and ICT capacities at Tanzanian Higher Education Institutions (GEO-ICT), Ministry for Foreign Affairs of Finland (HEI-ICI programme, education & capacity building), total budget 874 812€, Consortium PI Niina Käyhkö
- 2014-2019 (54 months), Project: Sustainability, scale relations and structure-function-benefit chains in the landscape systems of the Tanzanian Southern Highlands (SUSLAND), Academy of Finland (Development Research), Total budget 557 142€, PI Niina Käyhkö
- 2016-2018 (24 months), Project: GESEC: Geospatial business ecosystem for Tanzania (Research) Tekes and Ministry for Foreign Affairs of Finland, BEAM programme, Total Budget 580 000€, PI Niina Käyhkö
- 2016 (6 months), Project: Forest plantation mapping in Tanzania, Food and Agricultural Organization (UN-FAO, Commissioned Research), Total budget 65 000€, PI Niina Käyhkö
- 2016 (6 months), Project: Pre-GESEC: Geospatial ecosystem for location-sensitive decision-making business in Tanzania: a preparatory project (Tekes, Research), Total budget 118 000€, PI Niina Käyhkö
- 2013-2015 (32 months), Project: HEI-GIS capacities in Geography education at UDSM, Ministry for Foreign Affairs of Finland (HEI-ICI programme, education & capacity building), Total budget 512 925€, PI Niina Käyhkö
- 2010-2013 (48 months), Project: Changing land use and forest management practices and multidimensional adaptation strategies in Zanzibar, Tanzania, Academy of Finland (Development Research), Total budget 625 000 €, PI Niina Käyhkö

### Research output

Total number of publications: 96. Peer-reviewed scientific articles, journal article-refereed, original research (A1): 44; Review article, literature review, systematic review (A2): 1; Book section, chapters in research books (A3): 2; Conference proceedings (A4): 7; Non-refereed journal articles (B1): 17; Book section (B2): 2; Non-refereed article in conference proceedings (B3): 8; Edited book, conference proceedings or special issue of a journal (C2): 1; Article in a trade journal (D2): 2; Published development or research report or study (D4): 8; Popularised article, newspaper article (E1): 2; Thesis (G2, G5): 2.

I have been developing practical guidelines for using geospatial data and tools for official spatial planning institutions in Finland (Metsähallitus) Tanzania (National Land Use Commission) together with my research students and colleagues. See list of publications.

### Research supervision and leadership experience

I have supervised five (5) PhDs at UTU and University of Dar es Salaam (UDSM): Adjunct Prof. Nora Fagerholm (UTU 2007-12, principal sp.), Dr. Eric le Tortorec (UTU 2008-13, secondary sp), Dr Zahor K. Zahor (UDSM 2010-2014, secondary sp), Dr Timo Pitkänen (UTU 2010-2016, principal sp.) and Dr Salla Eilola (2016-2020, principal sp). I currently supervise three (3) PhD students: Zakaria Khamis (UTU 2014-, secondary sp, expected graduation 2021), Joni Koskikala (UTU 2015-, principal sp., expected graduation 2021), Johanna Jämsä (UTU 2020 – secondary sp.) Additionally I have supervised over 20 MSc theses at UTU since 2002. I have extensive team leadership experience since 2005. The total number of experts, including researchers and teachers in Tanzania engaged in the current projects is 40-50 persons. More information of the research and leadership activities at <https://geospatial.utu.fi/>, [www.utu.fi/tanzania](http://www.utu.fi/tanzania); <https://www.geoict.org/>; <https://resilienceacademy.ac.tz/>.

### Teaching merits

I have 20 years (since 2002) of continuous teaching and education development experience at the undergraduate (BSc, MSc) and postgraduate (PhD) level in geospatial and earth observation data, methods and applications at UTU. Additionally, I have given courses in land change research and landscape ecology. At UTU Geography, I have been in charge of the geospatial skills development track in the BSc and MSc curricula programs of Geography since 2002. Since 2018, I was one of the tenure professor recruitments for UTU Strategic profiling areas in Digital Futures (<https://digitalfutures.fi/>), funded by the Academy of Finland, and thus worked towards building geospatial education to strategic role at UTU. Since then, my teaching profile has shifted more towards MSc level specialization in geospatial research.

My teaching portfolio at UTU in geospatial research and in land change science currently includes the following MSc courses: Specialization in Geospatial Research (responsible teacher, 5 ECTS, since 2018, in Finnish, including academic mentoring of geography students on geospatial research track, ongoing course throughout MSc degree); Geospatial data management and visualization (responsible teacher, (5 ECTS, since 2018, in English, annually); Remote Sensing of Environment (responsible teacher, 5 ECTS, since 2018, in English, every other year); Geospatial Data Challenge Campaign (responsible teacher, (5 ECTS, since 2020, in English, annually); Spatial Biodiversity Informatics and Landscape Ecology (contribution teacher, 5 ECTS, since 2019, in English, annually); Participation, Spatial Planning and GIS (contribution teacher, 5 ECTS, since 2016, in English, every other year); Geography and Development (contribution teacher, 5 ECTS, since 2010, in English, every other year)

Additionally, I am in charge of the development of open access e-learning assets of the Tanzania Resilience Academy and GeoICT4e, published for open access (MOOC) in digicampus ([digicampus.fi](http://digicampus.fi)). I have been given visiting lectures in different

universities (Helsinki, Jyväskylä, Stockholm, Dar es Salaam, Zanzibar, Ghent). On top of academic education delivery at UTU, I am actively training the trainers in various development cooperation and competence development projects abroad through the commissioned research funding (World Bank, companies) and HEI-ICI/ICI funding instruments. Due to my international research project profile, I travel to Africa and particularly to Tanzania 3-4 times a year to teach government and academic professionals with geospatial competences and skills.

#### Other key academic merits:

I am the Deputy Director of Open Geospatial Research Infrastructure for Finland (Geoportti RI/previously oGIIR), which is an Academy of Finland Research Infrastructure. See [geoportti.fi](https://geoportti.fi). I am also the Head of the UTU Geospatial Labs (<https://geospatial.utu.fi/>) since 2008 (previously UTU-LCC), which is our institutional hub to access geospatial data, tools and resources at UTU. I am a vice-chair of the UNIPID (Finnish University Partnership for International Development), and board member of Lounaistieto, the Regional Information Service in Southwest Finland ([lounaistieto.fi](https://lounaistieto.fi)).

I have acted as a PhD opponent at the University of Oslo in 2018, University of Helsinki and University of Reading, and a pre-examiner of the PhD theses at the University of Helsinki and Stockholm University. I have been external reviewer of scientific projects for Swiss National Academy in several occasions and career promotion reviewer of experts from the University of KwaZulu-Natal for South Africa's National Research Foundation (NRF).

I am actively involved in several scientific societies and networks: FIUGINET (Finnish University Network in Geoinformatics), Board member and UTU representative 2008-; UTU Geospatial Labs contact person in AGILE and EARSeL networks since 2002, in Geo for All -network since 2018 and Copernicus Academy since 2018; Representative of UTU at UNISCAPE network (together with Prof Maunu Häyrynen) 2015 ; Working member of the Finnish Geographical Society 2003 –; Member of the International Association of Landscape Ecology (IALE) 1998 –; Member of PECSRL (Permanent European Conference for the Study of the Rural Landscapes) 2000 –; Member of Kaukokartoitusseura (Remote sensing society of Finland) 2006 –; Member of ProGIS ry 2003 –; Member of Suomen Kartografinen seura (Cartographic Society of Finland) 2003 –

I have extensive experience in hosting international research and study visits from 1 week to 7 months since 2002. These have concerned 150-200 persons coming to our department from European Universities (Stockholm, Ghent, Reading etc.), and from Tanzania. I have been journal referee in several Geography, GIS, Earth observation, landscape, and land use planning related journals. I visit national and international geospatial, earth observation and landscape related conferences around 3-4 times/year with oral and poster presentations.

#### Scientific and societal impact

I am proactively promoting open geospatial data, tools, innovative methods, open learning and research skills as critical enablers of digitalizing and sustainable society through various strategic meetings, mentoring and training of the trainers, presentations etc. at local, regional, national and international level. Over the last years I have increasingly been involved also with geospatial issues at political level in Finland and I am having intensive dialogue with the multinational organization (UN, World Bank), government and private sector actors about geospatial skills and expertise and how it could contribute to development of innovation driven society. All these discussions happen under the umbrella of my professional status and institutional role at the University of Turku. As part of the research and education projects in Tanzania, I have been designing, implementing and evaluating GIS competence development both in the academia and government, and in development cooperation projects at the institutional and individual level. I have been designing and executing geospatial competence of senior and junior level professionals, who have a need to improve their skills in GIS and related topics of remote sensing, cartography, spatial modelling, environmental analysis and spatial data infrastructures. I have been a team leader in geospatial commissioned projects since 2014 (Niras, Indufor, UN-FAO, World Bank), which all have related to sustainable geospatial data and technology solutions in rapidly developing countries.