

## Curriculum vitae

### 1. Personal details and date of CV

date: 23/09/2020

**Surname:** Lotsari; **First names:** Eliisa Selina; **Year of birth:** 1982; **Nationality:** Finland; **Researcher identifier (ORCID):** <http://orcid.org/0000-0002-0120-8722?lang=en>; **URL for website:** <https://uefconnect.uef.fi/en/person/eliisa.lotsari/>

### 2. Degrees

**Title of docent** (Adj. Prof.) in fluvial geomorphology, on 2.2.2016, Department of Geography and Geology (DGG), University of Turku (UTU), Turku, Finland.

**Doctor of Philosophy**, 23/08/2012, DGG, UTU, Turku, Finland. Field of research: Physical Geography & Fluvial Geomorphology. Title: "Fluvial processes and their future magnitudes: combined field observation and simulation approaches". Principle Supervisor: Prof. Jukka Käyhkö. Contact details of the organization that granted the degree: Prof. Petteri Alho (currently head of department), [mipeal@utu.fi](mailto:mipeal@utu.fi), DGG, UTU, FI-20014 Turun yliopisto, Turku, Finland.

**Master of Science**, 08/02/2007, Department of Geography, UTU, Turku, Finland. Major subject: Geography. Title: "Hydrological investigation of Pulmankijoki drainage basin – study based on sub-watersheds" (*in Finnish*). Supervisor: Adj. Prof., University Lecturer, Joni Mäkinen.

**Bachelor of Science**, 29/09/2005. Included **Sokrates-Erasmus-exchange** 2004: 6 months University of Sheffield, Sheffield, England, Department of Geography, 30 ECTS of studies in physical geography.

### 3. Current employment

**01/-31/08/2013 & 01/09/2016 onwards:** Senior Lecturer in Geoinformatics (permanent position), Department of Geographical and Historical Studies (DGHS), University of Eastern Finland (UEF)/Finland. Skills needed: GIS/remote sensing, physical geography, field measurements. As Adj. Prof., I am between stages III and IV on the academic research career (cf. the four-stage [I–IV] research career model): I am independent academic professional in research and education, capable in academic leadership. The main tasks are: teaching (basic, intermediate & advanced courses, Eng. & Fin.), student supervision, course-related administration, curriculum planning, departmental management group, strategic planning, research, applying funding, and development of water research community at UEF. As the President of the Finnish University Network for Geoinformatics (Fiuginet), and representative of the consulting committee of geoinformation (*Fin. Paikkatietoasiain neuvottelukunta*), tasks include national level development of teaching and research of Geoinformatics, discussions related to INSPIRE directive, and promotion of open science.

### 4. Previous (Academic) work experience

**01/09/2013–31/08/2016:** Post-doctoral researcher, the Academy of Finland. UEF / Department of Geographical and Historical Studies, Joensuu, Finland. During this time period, I was on a leave of absence from my permanent position of the university lecturer in geoinformatics. Project entitled: "Extreme and annual fluvial processes in river dynamics (ExRIVER)".

**23/08/2012–31/07/2013:** Postdoctoral Researcher, RivCHANGE- project (funded by the Academy of Finland) and UTU / Department of Geography and Geology.

**01/05/2012–23/08/2012:** PhD Researcher, UTU / Department of Geography and Geology and partly RivCHANGE- project (funded by the Academy of Finland).

**01/01/2012–30/4/2012:** PhD Researcher with scholarship (granted by Turku University Foundation, Finnish: Turun Yliopistosäätiö) and partly researcher in RivCHANGE-project funded by Academy of Finland. UTU / Department of Geography and Geology.

**01/07/2010–31/12/2011:** PhD Researcher, Value-doctoral school. Based at the UTU / Department of Geography and Geology.

**2009–2011:** Teacher of internet-based course [Geographies of natural resources]. Lecture and evaluations of essays. Continuously ongoing course during 2009-10 and 2010-11. Open University, UTU.

**01/02/2008–30/06/2010:** PhD Researcher in TULeVAT (Future of floods in Finland) and EXTREFLOOD II projects (funded by the Academy of Finland, Ministry of Agriculture and Forestry and Ministry of the Environment). UTU / Department of Geography.

**15/08/2007–31/01/2008:** PhD Researcher with scholarship (granted by Turku University Foundation, Finnish: Turun Yliopistosäätiö). UTU / Department of Geography.

**2006-2007:** Researcher 01/03/-31/07/2007, Project worker 24/04/2006–28/02/2007: VARAKUM-project: Research of landscape history (MapInfo, ArcGIS & Photoshop). Provincial museum of Turku & City of Uusikaupunki.

**2005–2007:** Teaching assistant, UTU/Department of Geography: Remote sensing methods and Image

interpretation (2006 & -07), Methods in Geographical Information Systems (2005 & -06), Quantitative methods (2005).

**2005:** Trainee of geography: 30/05/–02/07/2005 & 08/08/–28/09/2005. Council of South-West Finland / Lounaispaikka.

#### **Research visits:**

**2018:** Umeå University, Sweden, 17/-21/06/2018 (1 week), host Dr. Lina Polvi Sjöberg: research networking, preparation of ERC funding and field for gathering pilot data.

**2016:** University of Southampton, UK, 27/02/-28/03/2016 (1 month), host Prof. Stephen Darby: research collaboration, writing of papers & funding applications. I also gave seminars to Bachelor and Masters students.

**2015:** Australian Rivers Institute, Griffith University, Brisbane, Australia, 04/03/-20/05/2015 (3 months), host Prof. Jon Olley: research and field work in the Brisbane River basin. I was also a visiting lecturer, giving research seminars. This visit also included a field campaign in the Dart River, New Zealand (28/04/-18/05/2015) with researchers Queen Mary Univ. of London, UK (leader, Prof. James Brasington).

**2014:** Consejo Superior de Investigaciones Científicas (CSIC), Madrid, Spain, 09/03/-09/06/2014 (3 months), host Prof. Gerardo Benito: post-doctoral research, field work at Rambla de la Viuda, and invited talks in seminars and research group meetings.

**2013:** University of Arizona, Tucson, USA, 04/-16/03/2013 (2 weeks), hosts Prof. Victor Baker and Dr. Kyle House: field work at Bronco Creek.

**2010:** University of Arizona, Tucson, USA, 07/-13/03/2010 (c. 1 week), host Prof. Victor Baker: visiting lecturer at Civil Engineering Department, and gave lectures on: “Climate change impacts on flooding in Finland”.

**2010:** ESF TOPO-EUROPE SedyMONT Summer School on Detecting Landscape Change, 01/-08/09/2010 Loen, Norway. Presentation: “Fluvial processes in a changing climate: causes, effects and uncertainties of future floods in Boreal and Sub-Arctic Finland”.

**5. Career breaks:** None.

#### **6. Research funding and grants**

**As the PI: 11 times funding for research & 3 times for travels.**

##### **Post-doctoral research funding:**

**2020:** The Academy of Finland, international research mobility (to Finland from Russia, Dr. Nikita Tananaev), 15900 €. Postponed due to covid-19 to start in 2021.

**2020:** The Academy of Finland, mobility from Finland (to Germany, DAAD), 12626 €.

**2018:** University of Eastern Finland, Preparation grant for applying “ERC 2019 starting grant” for research project entitled “Defrosting sedimentary systems: the impacts on high-latitude fluvial environments”, 8200€.

**2018:** British Society for Geomorphology, Research grant, for collecting pilot data and preparing the funding applications to be submitted in 2019 autumn. (1000 £).

**2016:** Emil Aaltonen foundation. Funding for conducting the measurements of the valuable continuous time series, particularly during winter season, at Tana, Pulmanki and Kokemäenjoki Rivers during autumn 2016–spring 2017. (5000 €).

**2014:** Maj and Tor Nesslingin foundation. Effects of extreme and annual fluvial processes in river dynamics. Dr. Eliisa Lotsari and research group (28 825 €).

**2013: The Academy of Finland. Postdoctoral Researcher: Extreme and annual fluvial processes in river dynamics (ExRIVER). Principle Investigator: Dr. Eliisa Lotsari (245 744 €). 01/09/2013–31/08/2016.**

**2012:** Maj and Tor Nesslingin foundation. Postdoctoral research project: Äärimmäisten ja vuotuisten fluviaaliprosessien vaikutukset jokidynamiikkaan. Dr. Eliisa Lotsari and research group (32 125 €).

##### **PhD research funding:**

**2011:** Turku University Foundation, young scientist’s scholarship for PhD research, 01/01-30/04/2012 (6268 €).

**2009:** VALUE-doctoral school student position for 18 months, monthly salary for 07/2010–12/2011.

**2007:** Turku University Foundation, young scientist’s scholarship for PhD research, 15/08/2007-31/01/2008 (7530 €).

##### **M.Sc. thesis funding:**

**2006:** Valto Takala-foundation (Turun Suomalainen Yliopistoseura), scholarship for MSc thesis (1000 €).

**Travel funding: 2011:** Turku University Foundation, support for participation in AAG Annual Meeting 2012. 24/–28/02/2012, New York, USA. (1000 €). **2010:** Turku University Foundation, support for participation in International Polar Year (IPY) Oslo Science Conference. 7/–12/06/2010, Oslo, Norway. (800 €) **2009:** TOP-

säätiö, travel support: 6th Alexander von Humboldt International Conference: Climate Change, Natural Hazards, and Societies. 14–19/03/10, EGU Topical Conference Series, Merida, Mexico. (1000 €)

**Preparation of the funding application (the Academy of Finland) within the research group:** 1) FIRI roadmap (HYDRO-RI consortium, spring 2020), 2) RDI-Network funding (HYDRO-RDI-network consortium, September 2020), 3) FIRI 2020 (HYDRO-RI consortium, September 2020). In all of these, I am a consortium partner (PI of UEF), and consortium leader is Prof. Petteri Alho (UTU).

### **7. Research output**

- A professional guide on flood risk mapping (in collaboration with the Finnish Environment Institute, 2008): Alho P, Sane M, Huokuna M, Käyhkö J, Lotsari E, Lehtiö L. 2008. Tulvariskien kartoittaminen [*Eng.* Flood risk mapping]. Ympäristöhallinnon ohjeita 2. Luonnonvarat. Finnish Environment Institute and University of Turku. Helsinki. 99 p. (Textbook, professional manual or guide, dictionary)
- Development of hydrogeographical research infrastructure at UEF, Department of Geographical and Historical Studies. I started the research line of seasonal (including ice-covered conditions) fluvial processes on river environments, during the Postdoctoral research project of mine in 2013–2016.

### **8. Research supervision and leadership experience**

**I have guided 3 post-doctoral researchers**, Dr. Maria Kämäri in 2019, and Dr. Elina Kasvi in 2015–2019, and Nikita Tananaev (2020 onwards) during research field work, and related to writing of funding proposals and publications. **I have supervised 2 PhD researchers:** 2013–18 main supervisor of Maria Kämäri, DGHS/UEF/Finland. Her PhD gained the “young scientist reward” of the UEF in 2019. Co-supervisor of Franziska Wolff 2019–, UEF. Since 2013, **main supervisor of 10 Master and 10 Bachelor thesis**, DGHS/UEF/Finland. Annually advising/co-supervising 10-20 thesis in Bachelor/Masters seminar.

**I have been independent researcher and leading research projects since 2012**, when I started my post-doctoral projects (funders: the Academy of Finland, Maj and Tor Nessling). I have been the organizer of the related field campaigns. These projects have enabled me to develop as an independent researcher and they have given solid ground for further research applications as project leader. Leadership experience has been gained while being president and vice-president in Fiuginet and chairman of the geographical society of Turku, and a member of the management group and curriculum development group of the Department of Geographical and Historical Studies (UEF).

### **9. Teaching merits:**

I have extensive experience in teaching since 2005 (50 courses). The teaching methods include lectures, seminars, computer practicals, panel and group discussions, and field work methods. New courses have been developed, and the instructions (practicals), data material, applied softwares (/their versions), lectures and aims of the course have been updated along with technical and software advancements. I have particularly implemented topics related to hydrogeography, GIS and modelling methods in the courses.

**Senior Lecturer in Geoinformatics, UEF/Finland (total 40 courses):** Each year 7-8 courses (Tables 1&2). Corresponding teacher of courses related to geoinformatics, open source softwares, fundamentals of geography, physical geography, numerical modelling, field measurement methods in northern environments, fluvial research, scientific theories (basic, intermediate, advanced level courses [i.e. for post-graduate, graduate and undergraduate level students] in English and Finnish).

**Five visiting lectures 2010-19 (cf. Section 11):** Umeå University (Sweden, title as an example: “*Defrosting sedimentary systems: the impacts on the evolution and material transport of high-latitude rivers - Case studies from north to south*”), University of Southampton (UK), Australian Rivers Institute/Griffith University (Australia), CSIC (Spain) and University of Arizona (USA).

**Corresponding & assisting teacher at the UTU, University of Oulu, Open University (UTU) 2005-12 (10 courses):** Related to the similar themes as in UEF (see above), and remote sensing, quantitative methods, and research skills were taught (cf. Tables 1&2).

**Three demonstrations of teaching skills / scholarship:** 1) the position of University lecturer in geoinformatics (spring 2013, UEF: position gained), 2) the title of docent (autumn 2015, UTU: title of docent granted), 3) tenure track in Applied Digital Geospatial Research (autumn 2017, UTU: internationally evaluated qualified as an assistant professor). Teaching skills were evaluated as good.

**Curriculum development:** Since 2017, the member of the curriculum development group, DGHS/UEF. Thus, I have been able to be hands-on on the departmental level decision making of the curriculum details. In addition, I have been part of curriculum/syllabus thematic planning of Geography courses in 2013-14 and 2015-16, and in 2020-21 when the syllabus for my department (UEF) has been planned. Thus, I am taking

part in the development of big structural changes of our department's curriculum. As vice-president (2016–2019) and president (since 2019) of Fiuginet, I have been involved in national scale research and teaching development between Finnish Universities within the field of Geoinformatics.

Table 1. Teaching as Senior Lecturer, 2016 autumn–2020 spring. UEF=University of Eastern Finland, DGHS=Department of Geographical and Historical Sciences. There have not been official English names for all of the courses. Therefore both Finnish and English names are shown occasionally.

Year	Task	Name of the course, and its level (basic/intermediate/advanced)	Description of the work task	ECTS	teaching language	students (n)
2013–2020 (continuous)	One of the seminar group leaders	Tutkielmaseminaari, Geoinformatiikka (eng. "Bachelor and Master of Science research seminar, Geoinformatics") UEF/DGHS), intermediate and advanced	supervising / advising the theses: seminar takes place weekly (2 h/seminar)	10	Finnish	10-20
2020 spring	One of the responsible teachers	Luonnonmaantieteen prosessit (eng. Processes in physical geography, UEF/DGHS), intermediate	Due to covid-19, the field work and practicals were not possible to keep. Students were allowed to do the course as essays.	5	Finnish	3 (due to covid-19)
2020 spring	Responsible teacher	Paikkatietomenetelmät kouluopetuksessa (eng. GIS applications for teaching geography, UEF/DGHS)	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	18
2020 spring	Responsible teacher	Geoinformatiikan ja kartografian perusteet (eng. Introduction to Geoinformatics and Cartography, UEF/DGHS), basic	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	90
2019 autumn	Responsible teacher, and one of the course's developers	GIS-mallinnus ja analyysit I (eng. "GIS modelling and analysis I" UEF/DGHS), advanced	Lectures, planning and conducting the practicals of hydrodynamic modelling and hydrology.	5	English	13
2019 autumn	Responsible teacher	Geoinformatiikan jatkokurssi (eng. Geoinformatics advanced course, UEF/DGHS), intermediate	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	46
2019 autumn	Responsible teacher	Pohjoisen luonnon tutkimusmenetelmät (eng. "Research methods of northern environment" UEF/DGHS), advanced	Teaching of field work methods in Lapland, Lecturing: hydrogeographical research methods and laboratory work, practicals in GIS, remote sensing and data processing.	7	English/ Finnish	3 Fins, ~10 German
2019 spring	One of the responsible teachers	Luonnonmaantieteen prosessit (eng. Processes in physical geography, UEF/DGHS), intermediate	Lecturing (10 h), teaching of practicals and field methods. Evaluation of the course. This was a new course, and I was one of the designers with Timo Kumpula and Alfred Colpaert.	5	Finnish	17
2019 spring	Responsible teacher	Geoinformatiikan ja kartografian perusteet (eng. Introduction to Geoinformatics and Cartography , UEF/DGHS), basic	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	89
2019 spring	Responsible teacher	Geoinformatiikan haasteet työelämässä ja tutkimuksessa (eng. Challenges of GIS in work and science, UEF/DGHS), advanced	Lecturing, and organisig seminar talkss. Evaluation of the course.	5	Finnish	18
2018 autumn- 2019 spring	Responsible teacher	GIS projektityö (eng. GIS project work, UEF/DGHS), advanced	Lecturing and evaluation of the course.	5	Finnish	4
2018 autumn	Responsible teacher	Avoimet GIS-järjestelmät (eng. Open GIS, UEF/DGHS), advanced	Lecturing and teaching of practicals. Evaluation of the course. Open source softwares, data sharing interfaces.	5	Finnish	36
2018 autumn	Responsible teacher	Geoinformatiikan jatkokurssi (eng. Geoinformatics advanced course, UEF/DGHS), intermediate	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	44
2018 spring	Responsible teacher	Paikkatietomenetelmät kouluopetuksessa (eng. GIS applications for teaching geography, UEF/DGHS)	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	37
2018 spring	One of the responsible teachers	Luonnonmaantieteen prosessit (eng. Processes in physical geography, UEF/DGHS), intermediate	Lecturing (10 h), teaching of practicals and field methods. Evaluation of the course.	5	Finnish	16
2018 spring	Responsible teacher	Geoinformatiikan ja kartografian perusteet (eng. Introduction to Geoinformatics and Cartography , UEF/DGHS), basic	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	84
2017 autumn	Lecturer and one of the course's developers	GIS-mallinnus ja analyysit I (eng. "GIS modelling and analysis I" UEF/DGHS), advanced	Lectures, planning and conducting the practicals of hydrodynamic modelling	5	English	24
2017 autumn- 2018 spring	Responsible teacher	GIS projektityö (eng. GIS project work, UEF/DGHS), advanced	Lecturing and evaluation of the course.	5	Finnish	6
2017 autumn	Responsible teacher	Geoinformatiikan jatkokurssi (eng. Geoinformatics advanced course, UEF/DGHS), intermediate	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	17
2017 autumn	Responsible teacher	Pohjoisen luonnon tutkimusmenetelmät (eng. "Research methods of northern environment" UEF/DGHS), advanced	Teaching of field work methods in Lapland, Lecturing: hydrogeographical research methods and laboratory work, practicals in GIS, remote sensing and data processing.	7	English/ Finnish	7
2017 spring	One of the responsible teachers	Luonnonmaantieteen prosessit (eng. Processes in physical geography, UEF/DGHS), intermediate	Lecturing (10 h), teaching of practicals and field methods. Evaluation of the course. This was a new course, and I was one of the designers with Timo Kumpula and Alfred Colpaert.	5	Finnish	21
2017 spring	Responsible teacher	Geoinformatiikan haasteet työelämässä ja tutkimuksessa (eng. Challenges of GIS in work and science, UEF/DGHS), advanced	Lecturing, and organisig seminar talkss. Evaluation of the course.	5	Finnish	13
2017 spring	Responsible teacher	Geoinformatiikan jatkokurssi (eng. Geoinformatics advanced course, UEF/DGHS), intermediate	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	45
2016 autumn- 2017 spring	Responsible teacher	GIS projektityö (eng. GIS project work), advanced	Lecturing and evaluation of the course.	5	Finnish	2
2016 autumn	Responsible teacher	Avoimet GIS-järjestelmät (eng. Open GIS, UEF/DGHS), advanced	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	30
2016 autumn	Responsible teacher	Geoinformatiikan ja kartografian perusteet (eng. Introduction to Geoinformatics and Cartography , UEF/DGHS), basic	Lecturing and teaching of practicals. Evaluation of the course.	5	Finnish	110
2016 autumn	Responsible teacher	Pohjoisen luonnon tutkimusmenetelmät (eng. "Research methods of northern environment" UEF/DGHS), advanced	Teaching of field work methods in Lapland, Lecturing: hydrogeographical research methods & laboratory work	7	English/ Finnish	6

Table 2. Teaching during the first (PhD) and second (Postdoc) research career phase 2005–2016 spring. UEF=University of Eastern Finland, DGHS=Department of Geographical and Historical Sciences. There have not been official English names for all of the courses. Therefore both Finnish and English names are shown occasionally. The exact course credit and student amount records have not saved anymore in the Weboodi system of mine, where I have access to. Approximately 60-90 students have taken part in basic level courses, 40–50 students have taken part in the intermediated level courses, and circa 10-20 have taken part in advanced level courses.

Year	Task	Name of the course, and its level (basic/intermediate/advanced)	Description of the work task	teaching language
<b>2013–2016 (continuous)</b>	One of the seminar group leaders	Tutkielmaseminaari, Geoinformatiikka (eng. “Bachelor and Master of Science research seminar, Geoinformatics” UEF/DGHS), intermediate and advanced	supervising / advising the theses: seminar takes place weekly (2 h/seminar)	Finnish
2016 spring	Lecturer	Advanced GIS (UEF/Forestry Department), intermediate	Lecturing: hydrology in GIS analyses and application of GIS in simulations	English
2015 autumn	Lecturer	Ylirajainen pohjoinen alue (eng. “Border-crossing northern areas” UEF/ DGHS), advanced	Lecturing: Research of northern watersheds	Finnish
2015 autumn	Lecturer	Identiteetit ja työelämäkäytännöt (eng. “Identities and working life practices” UEF /DGHS), basic	Conversation of the geographers’ identity and readiness for working life	Finnish
2015 autumn	Lecturer and one of the course’s developers	GIS-mallinnus ja analyysit I (eng. “GIS modelling and analysis I” UEF/DGHS), advanced	Lectures, planning and conducting the practicals of hydrodynamic modelling	English/ Finnish
2015 autumn	One of the course’s leaders and developers	Teoriaseminaari (eng. “Theory seminar” UEF/DGHS), intermediate	Teaching of the scientific theories for GIS oriented students	Finnish
2015 autumn	Lecturer	Maantieteen alan perusteet (eng. “The fundamentals of geography” UEF/DGHS), basic	Lecturing: the fundamentals of hydrogeography	Finnish
2015 autumn	One of the course’s leaders	Pohjoisen luonnon tutkimusmenetelmät (eng. ”Research methods of northern environment” UEF/DGHS), advanced	Teaching of field work methods in Lapland, Lecturing: hyfrogeographical research methods and laboratory work	Finnish/ English
2015 spring	Lecturer	Geoinformatiikan haasteet työelämässä ja tutkimuksessa (eng. ”Challenges of geoinformatics in work and research” UEF/DGHS), advanced	Lecturing: geoinformatiikkaa hyödyntävän hydrogeografisen tutkimuksen haasteista	Finnish
2014 autumn	One of the course’s leaders and developers	Teoriaseminaari (eng. “Theory seminar” UEF/DGHS), intermediate	Teaching of the scientific theories for GIS oriented students	Finnish
2014 autumn	Specialist	Theory and a researcher? From a PhD to an academic career (Intensive course of Geography doctoral school during the Geography days at the University of Oulu), advanced	Teaching, leading of a working group, being part of a panel	Finnish /English
2014 autumn	Lecturer	Maantieteen alan perusteet (eng. “The fundamentals of geography” UEF/DGHS), basic	Lecturing of the fundamentals of hydrogeography and participation in panel discussion	Finnish
2013 autumn	Lecturer	GIS-mallinnus ja analyysit (eng. ”GIS modelling and analysis” UEF/DGHS), advanced	Planning and conducting the practicals of hydrogeographical modelling	Finnish
2013 autumn	Teacher in field work	Pohjoisen luonnon tutkimusmenetelmät (eng. ”Research methods of northern environment” UEF /DGHS), advanced	Kenttätömenetelmien opettaminen viikon kestäväällä kenttätöjaksolla ja Lecturing: hydrogeografisista tutkimusmenetelmistä	Finnish/ English
2013 autumn	Lecturer	Maantieteen alan perusteet (eng. “The fundamentals of geography” UEF/DGHS), basic	Lecturing: the fundamentals of hydrogeography	Finnish
2012 autumn	Assisting teacher	Luonnonmaantieteen tutkimuskurssi (eng. “Research course of physical geography” University of Turku/Department of Geography and Geology), advanced	Teaching of discharge and RTK-GPS measurements	Finnish/ English
2012 autumn	Assisting teacher	Tutkimustaitojen perusteet (eng. “The fundamentals of research skills” University of Turku/Department of Geography and Geology), basic	Teaching of scientific writing and spreadsheet calculation (Word- and Excel-sofwares, 22 h teaching)	Finnish
2010 spring	One of the course’s developers and corresponding teachers	Course in 2D-hydraulic modeling (University of Turku/Department of Geography), advanced	Planning the course and producing the teaching material (lectures, demonstrations, GIS data) and conducting practicals and field work (c. 162 h, including preparations)	English/ Finnish
2009–2011	One of the course’s corresponding teachers	Luonnonvarojen maantiede (eng. “Geographies of natural resources” Open university, Turku), basic	Lectures and evaluation of essays	Finnish
2007 spring	Teaching assistant	Remote sensing methods and Image interpretation, practical course (University of Turku/Department of Geography), intermediate	Teaching of the practicals (Erdas Images-software, 55 h teaching)	Finnish/ English
2006 autumn	Teaching assistant	Methods in Geographical Information Systems, practical course (University of Turku/Department of Geography), intermediate	Teaching of the practicals (ArcGIS- software, 50 h teaching)	Finnish/ English
2006 spring	Teaching assistant	Remote sensing methods and Image interpretation, practical course (University of Turku/Department of Geography), intermediate	Teaching of the practicals (Erdas Images-software, 40 h teaching)	Finnish
2005 autumn	Teaching assistant	Quantitative methods, practical course (University of Turku/Department of Geography), intermediate	Teaching of the practicals (SPSS- software, 40 h teaching)	Finnish
2005 autumn	Teaching assistant	Methods in Geographical Information Systems, practical course (University of Turku/Department of Geography), intermediate	Teaching of the practicals (ArcGIS- software), 50 h teaching	Finnish

## 10. Awards and honours

**2010:** APECS, IPY Oslo Science Conference Stipend. **2008:** European Geosciences Union, support award, free participation in General Assembly, Vienna.

## 11. Other key academic merits

**2020-:** NHF Board, Debuty member of Finland (Nordic Association for Hydrology). **2020:** Invited as a committee member for a PhD-defense of Pearl Mzobe, Department of Physical Geography and Ecosystem Sciences, Lund University/Sweden. **2019-:** Representative of Paikkatietoasiain neuvottelukunta (“national consulting committee of geoinformation”) since 5.11.2019. Representing universities via Fiuginet. **2019-:** One of the country representatives of Nordic IAG Umbrella Network of the five National Geomorphology Groups/Communities of Norway, Sweden, Finland, Denmark and Iceland (GeoNorth). **2019-:** President of the Finnish University Network for Geoinformatics (Fiuginet), Finland. From my initiative, Fiuginet has been broadened to include also Universities of Tampere and Vaasa (contract signed on 26 June 2020). Thus, the efforts of mine in increasing collaboration between universities is already showing. **2017-:** Member of the

management group of the Department of Geographical and Historical Studies, UEF. **2017–:** Member of the curriculum development group (teaching board, *Fin. Opetusyhällitus*), Dep. of Geographical and Historical Studies, UEF. **2016–19:** Vice-president of Fiuginet, Finland. **2017:** Reviewer for the National Science Foundation (NSF: United States). **2010:** Member of the Departmental council of the Dept. of Geography, UTU. **2007–12:** Participation in the steering groups of projects running at the UTU (ACCLIM, ISTO FINESSI, EXTREFLOOD II).

**Member of the editorial boards, 2018–:** Geomorphology; Depositional Record journal; Nordia publications, The Geographical Society of Northern Finland.

**Referee for 15 scientific publications in the following international/national academic journals since 2012:** Earth Surface Dynamics, Science of the Total Environment, Environmental Modelling and Software, Journal of Hydrology, Hydrology, Water Science and Engineering, Fennia, Geomorphology, Geography Journal, Journal of Geography Environment and Earth Science International, Remote Sensing, Water, Cartography and Geographic Information Science, Ympäristöopas, GFF Journal of the Geological Society of Sweden, Journal of Asian Earth Sciences.

**Experience of organizing scientific meetings: 2019–2021:** Nordic geographers meeting (NGM) in Joensuu/Finland 2021. Member of organizing committee. Up to 400 participants expected. **2017–20:** I have been convening fluvial geomorphology sessions at annual EGU General Assembly. **2016–19:** Organizer of the Finnish Geoinformatics research days annually via Fiuginet network. Circa 100 participants. Bilingual (Eng/Fin). **2016:** Finnish Geography Days 2016 in Joensuu / Finland, member of the organizing committee. Circa 150 participants. Bilingual (Eng/Fin). **2009:** Nordic geographers meeting (NGM) 2009 in Turku / Finland, member of organizing committee / secretary 2008–2009. Circa 200 participants.

**Significant invited international lectures: 2019:** Invited speaker at seminar, Umeå University, Department of Ecology and Environmental Sciences, Sweden, 17/04/2019: *Defrosting sedimentary systems: the impacts on the evolution and material transport of high-latitude rivers - Case studies from north to south*. **2016:** Invited lecture in Seminar series at Queen Mary University of London, Department of Geography, UK, 08/03/2016: *The effects of ice-cover on flow characteristics in a subarctic meandering river*. **2016:** Invited speaker in seminar Series, Department of Geography, University of Southampton, Southampton, UK. 16/03/2016: *The effects of annual and extreme fluvial processes on river dynamics in hydrologically different regions*. **2015:** Invited presentation in Seminar Series. Australian Rivers Institute, Griffith University, Brisbane, Australia 27/03/2015: *“Present and future fluvial processes in Finland: case studies from different river environments”*. **2014:** Invited talks in seminars and research group meetings in CSIC, Madrid / Spain, 09/03/-09/06/2014 during my research visit: *“Extreme and annual fluvial processes in river dynamics”*. **2010:** Visiting lecturer at the University of Arizona, 12/03/2010, Civil Engineering Department, Tucson/USA): *“Climate change impacts on flooding in Finland”*.

## **12. Scientific and societal impact**

During last five years (2015–2020), I have published 20 international peer-reviewed papers. In total, I have published 29 peer-reviewed publications since 2010, out of which 27 have been in ISI-ranked international journals, in addition to 1 in a national journal (Finnish language) and 1 publication in an international conference proceedings. I have been the first author in 13 of these peer-reviewed international journal papers. In addition, since 2005, I have also three published theses (Bachelor, Masters and PhD degree research dissertations), one monograph, i.e., a professional guide on flood risk mapping (written in collaboration with the Finnish Environment Institute in 2008), and one publication in a professional journal. My most cited paper (167 citations [Google scholar] on 23/09/2020) is “Veijalainen, N., Lotsari, E., Alho, P., Vehviläinen, B. and Käyhkö, J. 2010: National scale assessment of climate change impacts on flooding in Finland. Journal of Hydrology 391: 333–350”. My h-index is 12 in Scopus (432 total citations) and 13 in Google Scholar (660 total citations). Since 2015 the Google Scholar h-index is 13 (515 citations).

I have presented research results at 39 conferences during 2007–20 (cf. List of Publications). Examples, where poster and oral presentations have been held: General Assemblies of European Geosciences Union and American Geophysical Union, Nordic Hydrological Conference, Nordic Geographers Meeting and IPY Oslo Science Conference. These include also the visiting lectures (see Sections above).

As the President of Fiuginet & representative of the consulting committee of geoinformation: national level development of teaching and research of Geoinformatics, discussions related to INSPIRE directive, promotion of open science, and sharing of both research and teaching practices.

The general public has been engaged via social media, e.g. Twitter (@EliisaSelina) is applied. Updates of laboratory, field work and conferences are distributed also via Instagram (@eliisa\_lotsari) and Facebook. I

have been interviewed on national radio and national newspapers about my PhD and post-doctoral research (cf. List of publications).

### **13. Other merits**

**Memberships and positions of trust in scientific societies:** Member of European Geosciences Union since 2008. In 2006 a co-founder (vice president 2007–2008) of Urbaanin ystävät ry "geographical association", which developed "Cultural Turku" web map service.

**I have organized and conducted 30 field work campaigns** to Pulmanki River, Northern Finland / Lapland. I have also conducted tens of field campaigns to Kokemäenjoki River (Finland), Koita River (Finland), Sävarån (Sweden), Brisbane River (Australia), Rambla de la Viuda (Spain). I have also participated in Dart River field campaign (led by Prof. James Brasington, QMUL, UK), New Zealand 28/04/-18/05/2015. I was co-leading a field expedition at Bronco Creek, Arizona/USA, 4/-16/03/2013.