

Hanne Hvidtfeldt Christiansen  
Professor, Physical geography, UArctic Chair in Permafrost  
UNIS The University Centre in Svalbard

**1. Describe your academic expertise, with special focus on your expertise in permafrost:**

I have researched and provided various types of higher education within periglacial geomorphology during the last more than 30 years as a university employee. The last 20 years I have been employed at the University Centre in Svalbard, UNIS, and I have there developed permafrost as a research field as a physical geographer. My main research area is the link between climate and periglacial landforms in the North Atlantic area. I in particular study climatic and meteorological control on periglacial landforms, processes and sediments, permafrost-active layer thermal conditions and processes and geohazards in cold climate areas with frozen ground. Lately, I am leading a project to develop a permafrost and meteorological climate change response system to build resilience in Arctic communities (PermaMeteoCommunity). This is an interdisciplinary geoscientific and engineering approach, so I am widening my collaborations on permafrost, and now also work with social scientists researching permafrost topics particularly in Svalbard.

I have a strong international focus in my activities being involved for more than 20 years in the activities of the International Permafrost Association, and in different EU, Nordic and national research projects on permafrost. I have been involved in developing the Centre for Excellent Education called iEarth, which focusses on further developing the geoscientific education in Norway to come closer to the future societal needs. This includes internships as one of the focus areas.

**2. Describe your supervision experience:**

I have been educating students at Copenhagen University, Oslo University and UNIS within physical geography since I was a teaching assistant from 1990, so during more than 30 years. I have supervised more than 30 master students at UNIS and before then around 7 master students at KU. I have been the main supervisor of 7 PhD students at UNIS, 5 of which have finished and two are still studying.

I have a Pedagogic University Course from the Faculty of Science, University of Copenhagen, Denmark from 1999. At UNIS, I have followed the Learning Forum during the last 10 years, and gotten inspiration also for different ways of supervision.

**3. Describe the students at your home institutions, including the academic programs and any teaching on permafrost:**

UNIS does not have its own students and thus no full academic programme/study programme. But UNIS offer the following three permafrost courses:

AG-218 International Bachelor Permafrost Summer Field School (10 ECTS)

AG-330/830 Permafrost and Periglacial Environments (10 ECTS)

AG-352 Geohazards and geotechnics of high Arctic Permafrost regions (10 ECTS).

Permafrost is also included in several other courses in both Quaternary Geology, terrestrial biology and technology.

**4. Describe how your home institution is currently working with internships (e.g. compulsory part of education, offered as courses, no internship opportunities offered, etc.). Please provide as much information as possible regarding the formal structure and possibilities for students:**

UNIS does not work with internships. Typically we only receive internship students for thesis work. A challenge is that Longyearbyen is a small community with only limited internship possibilities. So, we clearly need international collaboration like PermaIntern for making internships work at our institution as well.

**5. Describe any mandatory parts of internships at you institution and how they may complement of overlap with the mandatory parts of the PermaIntern program (project plan, midway presentation, final project report)**

We get a lot of students asking for doing an internship with us at UNIS. So far, we can only accommodate those who can do it as a formal bachelor or masters thesis. These are then taken up as guest bachelor or master students. And they must have their own funding as UNIS does not support them financially in any way. Potentially, research projects at UNIS can support students doing a specific job for the project in their thesis/internship.

**6. Provide a reflection on your role as a supervisor for interns in the PermaIntern program, in the context of your answers to questions 1-6 above:**

Supervision of students is one of the parts of my job that I enjoy the most. This allows for developing new research and thus new researchers or Arctic experts. It is also a demanding role, which builds on the students trust in me. I like discussing possibilities with students and prefer that they themselves figure out what they like to do in their thesis. However, many students like to have suggestions for what to do, and I see it as my main role to guide them towards what their main interests are. As a supervisor I mainly experience that my job is to find, limit/lower the ambition level to something manageable together with the students.

Supervision is very individual as students have very different needs for support. As a supervisor I also try to let the students know that they are in charge of their own project (often for the first time), but that I am always there for assistance and discussion. I aim for following up students quickly, and also aim for assisting them in learning how to find their way through the administrative challenges of doing a thesis with us at UNIS in combination with their home university.

I look very much forward to seeing PermaIntern in action. I believe that students can grow substantially if they get a good internship experience studying permafrost in real working life. So, I think that we supervisors will have an important role in supporting both students but also hosts in understanding their possibilities and responsibilities. And of course, particularly in getting the PermaIntern up and running with several pilot students and later by supporting the system as part of the TNP activities.

**7. Would you be interested to act as a supervisor also for students from other institutions? If so, please provide a reflection on how you could best provide such supervision:**

Yes, this is what I normally do all the time, as UNIS only has supervision of guest bachelor or master students for theses done in collaboration with us at UNIS but officially defended as part of their home university's degree system. As I am very used to international collaboration, I think it will be fully possible to support students from outside UNIS acting as their main internship host. This, as I have a rather wide permafrost experience, and as a UNIS employee am used to collaborating with other universities on supervision. Also, because I have gathered experience on collaborating with companies and authorities at both local and national scale.