UiT The Arctic University of Norway
Norwegian College of Fishery Science

Jobbnorge ID: 227741
Deadline: 8/31/2022
Website: https://uit.no/startsida
Scope: Fulltime
Duration: Fixed Term

Faculty of Biosciences, Fisheries and Economics

Postdoctoral Research Fellow in Simulation of Technology Impact

The position

UiT The Arctic University of Norway, The Faculty of Biosciences, Fisheries and Economics (BFE) has a position available for a Doctoral Research Fellow in fishing and aquaculture technology. The position is affiliated with The Norwegian College of Fishery Science (NCFS) and the research group CRAFT.

The position is a fixed term position for a duration of three years without teaching duties to NCFS. Appointment to the position of Postdoctoral Research Fellow is mainly intended to provide qualification for work in top academic positions. It is a prerequisite that the applicant can carry out the project over the full course of the employment period. No person may hold more than one fixed term position as a Postdoctoral Research Fellow at the same institution.

The workplace is at UiT in Tromsø**.** You must be able to start in the position within a reasonable time after receiving the offer.

If you receive a personal overseas research grant from NFR it is possible to apply NFR for an extension of the fellowship period corresponding to the length of the stay abroad (minimum three months, maximum 12 months).

The project

This position is connected to the project FUTURES4Fish: Adaptive socio-technological solutions for Norwegian fisheries and aquaculture and is funded by the Norwegian Research Council.

The FUTURES4Fish specific objectives are: (1) Map and analyze overall trends and signals that are shaping tomorrow's Norwegian fisheries & aquaculture (F&A) environment; (2) Identify and compare possible, probable, preferable, and disruptive F&A scenarios with a 20 years horizon (i.e. 2040); (3) Model likely responses of individuals, local and indigenous communities, society, and environment to these scenarios; (4) Quantify the impact of various scenarios and of the likely responses to these; (5) Prototype efficient solutions for achieving preferable scenarios and coping with disruptive ones, i.e. novel conceptual designs of F&A vessels, adaptive bottom-up innovation arenas, legal blueprints for the use of next generation technology, guidelines for ethical technology design for and governance of autonomous natural resource extraction, methodology for knowledge integration for Blue Futures.

The running example of Autonomous Fishing Technologies (AFTs) will be used throughout the project; see: Vanhée, L., Borit, M., Santos, J., 2020 og Santos, J., Borit, M., Vanhée, L., 2020.

You must submit a project proposal that describes how you scientifically can contribute to the project**.** The proposal must include a progress plan. It should be maximum 5 pages (references included) with a clear and concise description of main research ideas.

The position's field of research

This postdoctoral research fellow position will focus on the simulation of impacts of autonomous and other emerging technologies in natural resource extraction, with fisheries and aquaculture (F&A) as a running example. The position will also contribute to prototyping efficient solutions for achieving preferable scenarios and coping with disruptive ones and to developing guidelines for ethical technology design for and governance of autonomous natural resource extraction.

All the participants in the project will be included in an introductory program for increasing their knowledge and awareness about the fishing industry. This program will include visits to fishing boat(s) and aquaculture sites, visits to local communities, and participation in meetings with the stakeholders. All the participants will also be included in project activities related to science communication, science education, and project management.

Possible research questions address operational, ecosystem, and societal scales:

- In different economic environments, business modes, and ecological conditions, how should autonomous agents negotiate and agree on the exploitation of a local resource, for instance a fish school?

- How can autonomous agents cooperate or compete in fishing / aquaculture operations while promoting good resource management and governance?
- Given the possible stealth and fishing power of autonomous agents operating over large scales, what honest information and regulations/norms are required for appropriate resource management?
- What other operational definitions and references of sustainability would be suitable in different futures to address questions of profitability, equity, compliance, environmental impact, biodiversity, and evolutionary potential, as well as to address regional development policies and goals?
- How can we prepare socially, politically, and economically for different futures scenarios, maintaining resistance and resilience in face of disruptive events?

Contact

For further information about the position, please contact Professor Jorge Santos:

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Qualifications

This position requires a Norwegian doctoral degree (PhD) or an equivalent foreign doctoral degree in social simulation; computer sciences; marine or maritime related studies (fisheries management, natural resource management, ocean studies etc.); biology / ecology; sustainability; social sciences; cognitive sciences; law; futures studies; operation research; organizational/business management, or similar.

Emphasis will be attached to the applicant's potential for research, independent work, and interaction with the industry as shown by:
1. doctoral thesis
2. any other academic works
3. research plan description

Qualification with a PhD is required before commencement in the position. We accept applications from PhD candidates in the final stages of completion, provided that the final defense is within three months of the application deadline. You must submit the thesis with your application. You must have dissertated before the start-up date of the position.

The candidate must have:

- knowledge and experience with Agent-Based Modelling (ABM), preferably using NetLogo;
- experience / familiarity working with both qualitative and quantitative data collection and analysis;
- very good / excellent written and oral English skills.

It is an advantage if the candidate has:

- knowledge of ethics of technological development
- knowledge of technological impact assessment
- experience with futures studies techniques
- knowledge / familiarity with the Norwegian language or Scandinavian languages
- experience with social simulation
- experience with computational social science
- experience with individual-based modelling
- experience with modelling multi-agent systems
- experience with multidisciplinary/interdisciplinary/transdisciplinary research
- experience with autonomous (marine) systems and other emerging technologies
- knowledge of (Norwegian) fisheries or aquaculture or other natural resource extraction domain
- experience with fishing / aquaculture operations or other natural resource extraction industry
- experience working with stakeholders (participatory modelling)
- experience with science communication/education or training activities

During the assessment emphasis will be put on the candidate's motivation, potential for research, and personal suitability for the position. We are looking for candidates who:

- Have good collaboration skills
- Have good communication and interaction with colleagues and students
- Wants to contribute to a good working environment

At UiT we put emphasis on the quality, relevance and significance of the research work and not on where the work is published, in accordance with the principles of The San Francisco Declaration on Research Assessment (DORA).

Inclusion and diversity

UiT The Arctic University i Norway is working actively to promote equality, gender balance and diversity among employees and students, and to create an inclusive and safe working environment. We believe that inclusion and diversity is a strength, and we want employees with different competencies, professional experience, life experience and perspectives.

If you have a disability, a gap in your CV or immigrant background, we encourage you to tick the box for this in your application. If there are qualified applicants, we invite least one in each group for an interview. If you get the job, we will adapt the working conditions if you need it. Apart from selecting the right candidates, we will only use the information for anonymous statistics.

We offer

- Three years of 100% research employment
- Involvement in an interesting research project
- Good career opportunities
- Funds for research, training, networking, and dissemination/communication
- A good academic environment with dedicated colleagues
- Flexible working hours and a state collective pay agreement
- Pension scheme through the state pension fund

More practical information for working and living in Norway can be found here: https://uit.no/staffmobility

Application

Your application must include:

- Letter of application/motivation explaining why you are a qualified candidate for the job when considering the “must have” and “advantage” requirements indicated here.
- Project proposal that describes how you can contribute scientifically to the FUTURES4Fish project / described field of research and development. The proposal must include a clear and concise description of main research ideas and a progress plan for the employment period (three years). Max 5 pages, including references.
- CV including track record.
- Diplomas and transcripts (all degrees).
- Copy of Master’s and PhD theses or equivalent.
- Two written references / recommendations, including contact information.
- Documentation of proficiency in the English language. See here how to document this.
- Documentation / description of knowledge or familiarity with the Norwegian language (or any Scandinavian language).
- A list of your academic or professional production (if any).
- Description of your academic or professional production (if any), stating which works you consider most important.
- Academic works or professional works, if any. The Master’s and PhD theses are regarded as one work each.

All documentation to be considered must be in a Scandinavian language or English. We only accept applications and documentation sent via Jobbnorge within the application deadline.

Assessment

The applicants will be assessed by an expert committee. The committee's mandate is to undertake an assessment of the applicants' qualifications based on the written material presented by the applicants, and the detailed description draw up for the position.

The applicants who are assessed as best qualified will be called to an interview. The interview should among other things, aim to clarify the applicant’s motivation and personal suitability for the position.

General information

The appointment is made in accordance with State regulations and guidelines at UiT. At our website, you will find more information for applicants.

The remuneration for Postdoctoral research fellow is in accordance with the State salary scale code 1352. A compulsory contribution of 2 % to the Norwegian Public Service Pension Fund will be deducted.

The successful candidate must be willing to get involved in the ongoing development of their department and the university as a whole.

According to the Norwegian Freedom and Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

UiT - Developing the high north

UiT The Arctic University of Norway is a multi-campus research university and the northernmost university of the world. Our central location in the High North, our broad and diverse research and study portfolio, and our interdisciplinary qualities make us uniquely suited to meet the challenges of the future. At UiT you can explore global issues from a close-up perspective.

Credibility, academic freedom, closeness, creativity and commitment shall be hallmarks of the relationship between our employees, between our employees and our students and between UiT and our partners.

The Faculty of Biosciences, Fisheries and Economics (BFE) consists of Department of Arctic and Marine Biology, Norwegian College of Fishery Science (NFH) and School of Business and Economics.

The main task of BFE is to conduct teaching and research dissemination at a high national and international level within all relevant fields. Prioritized research areas are aquatic and terrestrial ecosystems, climate, life in the arctic, marine bioprospecting, fish health, seafood products, business and macroeconomics, resources and environment, markets and management of marine resources. The interdisciplinary profile of the faculty provides good opportunity to develop research projects involving several research groups at the faculty according to its strategy.

Additional information

Place of service:

Hansine Hansens veg 18 9019 Tromsø (Tromsø - Romsa Municipality)