HarSval workshops:
Scientists as knowledge brokers and better science management as a synergy effect of the Polish-Norwegian collaboration

Part II. Oslo (3-4.10.2024)

Advancing Polar Science: Funding Strategies, International Collaboration, and AI Innovations

The HarSval project workshop, to be held in Oslo on October 3-4, 2024, will consist of two thematic modules. The first module will cover principles, mechanisms, and tools for research funding, management of international scientific projects, principles of fund allocation, strategic planning, feedback and transparency in research, building interdisciplinary research networks, and international scientific collaboration. This module will also provide updates on EU policies, guidance on accessing funding, and tips for aligning research with EU priorities.

The second module will be dedicated to the use of artificial intelligence in polar research. Invited experts will present the latest achievements in this field and demonstrate the versatility of artificial intelligence and machine learning applications in polar research. Additionally, participants will gain knowledge on the legal and ethical use of AI in science and will undergo training in prompting ChatGPT.

The HarSval project workshop will feature an intensive and comprehensive program structured into two thematic modules, each designed to provide participants with in-depth knowledge and practical skills crucial for advancing scientific research and collaboration. These workshops are specifically addressed to the research community from partner institutions of the HarSval project from Poland and Norway, with a special focus on early career researchers.

Module 1: Research Funding and International Project Management

Overview:

This module will provide a deep dive into the intricacies of research funding, focusing on principles, mechanisms, and practical tools for securing and managing financial support for scientific endeavors. Emphasis will be placed on the strategic aspects of funding and project management within an international context. Invited experts represent funding agencies from Poland and Norway, as well as Member States science offices in Brussels.

Key Topics:

1) Principles and Mechanisms of Research Funding:

- Detailed exploration of various funding sources, including governmental, non-governmental, and private sector grants.
- Understanding eligibility criteria, application processes, and evaluation metrics.
- Strategies for preparing compelling grant proposals and securing funding.

2) Management of International Scientific Projects:

- Best practices in project planning, execution, and monitoring.
- Techniques for effective resource allocation and risk management.
- Tools for ensuring compliance with international standards and regulations.

3) Fund Allocation and Strategic Planning:

- Methods for prioritizing research initiatives and distributing funds efficiently.
- Strategic planning to align research goals with available resources and funding opportunities.
- Long-term sustainability planning for ongoing and future projects.

4) International Scientific Collaboration:

- Navigating the complexities of cross-border research partnerships.
- Strategies for effective communication and coordination among international teams.
- Understanding cultural, legal, and logistical considerations in international collaborations.

5) EU Policies and Funding Opportunities:

- Latest updates on EU research policies and funding frameworks, including Horizon Europe.
- Practical guidance on accessing and maximizing EU funding opportunities.
- Aligning research projects with EU priorities and strategic objectives.

Module 2: Application of Artificial Intelligence in Polar Research

Overview:

This module will focus on the innovative use of artificial intelligence (AI) and machine learning (ML) in polar research. Participants will be introduced to cutting-edge AI technologies and their diverse applications in studying polar environments.

Key Topics:

1) Latest Achievements in AI for Polar Research:

- Overview of recent advancements and breakthroughs in AI and ML.
- Case studies showcasing successful AI applications in polar research.
- Emerging trends and future directions in AI-driven polar science.

2) Versatility of AI and ML Applications:

- Climate Modeling: How AI models are improving the accuracy of climate predictions and helping to understand complex climate phenomena.
- Conservation Efforts: The use of AI in monitoring wildlife populations and habitats, as well as in fighting illegal poaching and logging.

3) Detailed examination of AI tools and techniques used in polar research, such as satellite image analysis, climate modeling, and biodiversity monitoring:

- Practical demonstrations of AI applications in data collection, processing, and analysis.
- Integration of AI with other technologies to enhance research capabilities.

4) Ethical and Legal Considerations:

- Understanding the ethical implications of using AI in scientific research.
- Legal frameworks governing the use of AI technologies in research contexts.
- Best practices for ensuring ethical compliance and responsible AI usage.

5) Training on Prompting ChatGPT:

- Hands-on training sessions on using ChatGPT for research purposes.
- Techniques for crafting effective prompts to elicit relevant and accurate responses from AI models.
- Exploring the potential of AI conversational agents in facilitating research communication and knowledge dissemination.