> **Date: September 28th and 29th 2022**
> **Location: HOTEL OLAVSGAARD** Conference hotel located between Oslo and Gardermoen.

Visual Intelligence (VI) Days 2022

Vision

We shall be the lead provider of cutting-edge deep learning solutions for image analysis to answer innovation needs shared across our consortium of corporate and public sector user partners and beyond.

Aim for VI Days

Researchers, user partners, and invited guests gather for knowledge-sharing and updates on the latest Visual Intelligence (VI) research and innovations. We will have a social program with plenty of opportunities for dialogue, interaction, discussions, networking, and socializing.

Pre-Program for the Visual Intelligence Graduate School - VIGS

September 27th

Afternoon gathering of VI young researchers and graduate students to grow transferrable skills, share scientific experiences and get to know each other across institutions and competence. The event will take place at University of Oslo.

Main Program Visual Intelligence Days

September 28th

08:30-09:30	**Registration and coffee**
09:30-09:45	**Welcome and "state-of-the-VI-union"**
09:45-10:30	**Introduction to convolutional neural networks and deep learning**
10:45-12:00	**User partner VI-related work/results/innovations/processes** Representatives from our user partners will give 12-15 min presentations of VI-related work, including outcome in terms of results and innovations.

Floris Groesz, Terratec
Erik N. Steen, GE Vingmed Ultrasound
Nils Olav Handegaard, Institute of Marine Research

Karl Ø Mikalsen, University Hospital of North Norway
Øyvind Skjæveland, Equinor

12:00-13:00   **Lunch**

13:00-14:15   **Continued user partner VI-related work/results/innovations/processes**

Jan Nygaard, Cancer Registry
Jørgen Agersborg and Sara Björk, KSAT (presentation I)
Hans Berg Borhaug and Johan Mikkelsen, KSAT (presentation II)

14:30-16:30   **Methodology with potential for transfer and synergies**
This session shows ongoing work on advancing Visual Intelligence research challenges to drive innovations on user partner problems and data. The session will provide inspiration for synergies and transferred across applications.

Confirmed presentations (each 10 min, still two presentations TBD):

Anne Solberg	*Exploiting context and dependencies*
Fredrik Dahl	Analyzing breast positioning in mammograms with graph convolutional networks
Sarina Thomas	Light-weight spatio-temporal graphs for segmentation and ejection fraction prediction in cardiac ultrasound
Alba Ordonez	*Providing interpretable solutions*
Kristoffer Wickstrøm	Explaining representations for medical image retrieval
Michael Kampffmeyer	*Learning from limited data*
Anders U. Waldeland	Seismic analogy retrieval
Robert Jenssen	ShipPointYolo for ship detection
Fred Godtliebsen	*Quantifying uncertainty in predictions*
Iver Martinsen	SCAMPI: Species Classification Automation for Microfossil Photomicrograph Images
Are Jensen	Self-supervised inspired score values for building-change detection

17:00-19:30   **Spotlights, posters and interaction**
This session highlights VI-relevant work across the consortium. The intention is to mingle and to learn from each other. Each poster is preceded by a brief spotlight presentation. Confirmed posters by:

Sristhi Gautam; Suaiba Salahuddin; Nikita Shvetsov; Magnus Størdal; Eirik Østmo; Sigurd Løkse; Durgesh Singh; Iver Martinsen; Lars A. Bongo & Robert Jenssen; Alba Ordonez & Anders U. Waldeland; Fredrik Dahl; Are Jensen.

There will be more posters and you can contact the organizers if you would like to give a poster suitable for VI Days.

20:00   **Dinner in Hotel Restaurant**

September 29th
09:00-09:45   **Continued: User partner VI-related work/results/innovations/processes**
               The overall topic of this session is "deep learning/image analysis" in practice
               from the perspective of the user partners.

               Stian Rostad, Terratec
               Erik N. Steen, GE Vingmed Ultrasound
               Karl Ø Mikalsen, UNN

10:00-12:00   **Collaborative work session with user partners**
               Work sessions centered around individual user partners.

               Structure
               - Revisit the Visual Intelligence research plan 2022.
               - Brief presentations to review status of ongoing/planned activities.
               - Discuss progress and path forward.
               - Discuss adjustments to the research plan for 2023.

12:00-13:00   **Lunch**

13:10-14:15   **Inspirational talk by invited speaker:** *"Lighthouse project DoMore!"*
               Prof. Håvard Danielsen (Oslo University Hospital and UiO)

14:30-16:00   **Outlook**
               - Summarizing thoughts
               - Trends in deep learning
               - Closing (Director, co-directors)

16:00   **END**