

## Coastal Engineering Day – 2019

### Summary of the Event

**Onno Musch**, PIANC YP/Norconsult – Presented PIANC with focus on activities and opportunities for young professionals and students. Join!

**Jørgen Krokstad**, NTNU/Norconsult – Status update for the Centre for Coastal Technology. Very important activity for the future of coastal engineering in Norway. Industry needs to get involved to make the centre relevant.

**Ruben Rostad**, Kystverket – Ruben shared the NCA's plans for the future, going through a transitional phase with new challenges and opportunities. Exciting to see that the NCA is planning on more focus on R&D and becoming a world leader in fairway management with expertise in several interesting areas!

**Bård Helge Thingstad**, Kongsberg Maritime – Showed some examples of the use of simulations in shipping and coastal engineering. Internationally leading competence situated right here in Trondheim! Very relevant in the ever more digital reality of engineering.

**Andreas Ravnestad**, Norconsult Informasjonssystemer – Presented on the cutting edge Madart project – using machine learning to provide destination prediction, anomaly prediction, ETA and many interesting applications within the field of coastal engineering, moving towards autonomous systems and ever more pressure on time-effective systems. A real look into the future with grounding prediction to increase shipping safety!

**Ole Anders Nost**, Akvaplan-niva – Akvaplan-niva have developed a current mapping tool that can accurately model the large scale current patterns, as well detailed current patterns in narrow passages. A very useful tool for coastal engineering in Norway.

**Marit Reiso**, SAP – Marit showed some inspiring examples of simulation based digital twins and intelligent asset management to avoid archive based structure analysis and instead look into the future.

**Erling Siggerud**, Digital geology – A key factor in any coastal project is the mapping of geology and control over foundations for potential structures. Erling showed a very interesting form of geotechnical surveys using seismic wave analysis that should have a good potential for coastal uses.

## **NTNU**

**Hans Bihs** – Presented on REEF3D phase resolved wave models and the new fully non-linear potential flow model (FNPF)

**Arun Kumath** – Showed how NTNU is focusing on relevant research based education! Very positive focus at NTNU that should make it even more interesting for industry to get involved.

**Raed Lubbad** – Presented on NTNU's arctic engineering. Still a field with many challenges and good potential for interesting research!

Presentations from 3 master projects:

1. **Daniil Popov** – Submerged floating tunnel: water-structure interaction
2. **Sungsoo Lim** – CFD investigation of fluid structure interaction of an aquaculture collar
3. **Nauman Raza** – Physical model study of living breakwaters

All 3 projects were of a very impressive quality and very well presented by the students! Also here we could see the focus on relevant projects for industry.

Thank you to all those who presented for very interesting topics!