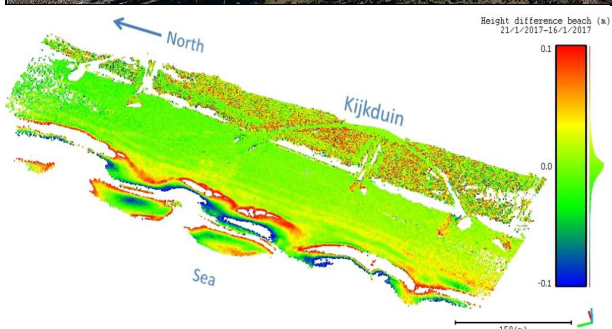
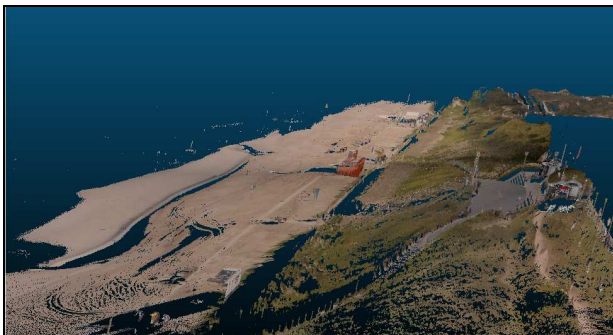


3D continuous change detection of sandy beaches

The CoastScan project

Beaches and dunes have protected the Dutch coast for many centuries. However, their topography is dynamic and sensitive to events like sea level rise and big storms. Last year a new measuring technique called CoastScan has been developed to study and monitor coastal variability using permanent laser scanning at unprecedented detail. The technique has been used last winter to measure the beach at Kijkduin for 6 months. What is missing so far is methodology to efficiently detect and quantify changes from the resulting 4000 consecutive scans.



Example scan results of the RiegI VZ2000 at the Kijkduin beach

Supervisors

Roderik Lindenbergh
(Geoscience and Remote Sensing)
Sander Vos (Coastal Engineering)



The RiegI VZ2000 scanner permanently at work in Kijkduin

Research Goals

The main research goal is to study and implement techniques to differentiate and quantify different change regimes at different locations on and off the beach. You will be asked, first, to make an inventory of different available techniques and assess the usability for detecting beach changes. Second to implement one or more promising approaches and assess and validate the detected changes.

Your profile

We are looking for a candidate with an interest in the analysis of laser scan data and application in state of the art research on Coastal Monitoring

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