Maritime DTU
Center for Maritime Activities

“Partly defined project” about wave, motion and data analysis (ocean wave spectra, sea state estimation, correlations between motions and waves, vessel performance …)

Type of projects: BSc and MSc

Project descriptions:

If you would like to work with real data (motions, engine, …) from ships, a palette of projects can be formulated.

- “A quantification of the effect of inconsistent wave spectrum estimates” The effect of introducing a unimodal parametric wave spectrum, or an in another way inconsistent wave spectrum, as an approximation to realistic ocean wave spectra when wave-structure interactions are considered... Short-term and long-term statistics...
- “Spatial and temporal variation of wave conditions” Based on ERA5 wave data (COPERNICUS)….
- “A simple approach for estimation of wave parameters” The project should look at the possibility to estimate wave parameters from a simple approach; Hs can be estimated using vessel RAOs, Tz (or Tp) should be estimated from corresponding periods of the actual responses.
- “Spectral representation of time series” Effects of discretisation, cut off frequencies, ... with an account to the wave buoy analogy…

Contact person

Ulrik Dam Nielsen
DTU Mechanical Engineering
udn@mek.dtu.dk

MAERSK DFDS MARIN