

Xu Han, PhD candidate
Dept. of Marine Technology
SFI MOVE
Email: xu.han@ntnu.no



Vessel Motion Prediction Based on Adaptive Numerical Model with Measurement Data

- Supervisor: Bernt Johan Leira (NTNU)
- Co-Supervisor: Svein Sævik (NTNU), Lars Tandle Kyllingstad (SINTEF), Stian Skjong (SINTEF)

Research topics:

- Modification of numerical model based on real-time onboard measurements and weather information
- Short-term and long-term vessel motion prediction
- Reliability of approach utilizing response-based operational criteria approach for marine operations

Industrial goals:

- More accurate response-based approach for marine operations, to improve safety and operational limit
- Robust onboard decision support system for marine operations

Scientific questions:

- How to modify model based on measurements, considering uncertainties and frequently shifted operating phases

Innovations:

- Methods for vessel motion prediction leading to improved safety and operability for marine operations

Cooperating companies:

- SINTEF, Ocean Installer