

## **Abstract 021 – RH Marine Netherlands**

From: [ehab.elamam@rhmarine.com](mailto:ehab.elamam@rhmarine.com)

First Name: Ehab

Last Name: El Amam

Presenter (if different):

Other Authors:

Company: RH Marine Netherlands

Address: Jan Evertsenweg 2

Address Continued:

City: Schiedam

State/Province: South-Holland

Postal Code: 3115JA

Country: Netherlands

Email: [ehab.elamam@rhmarine.com](mailto:ehab.elamam@rhmarine.com)

Telephone: +31652516099

Fax:

Presentation Title: Operational support by controlling ship motions (DP Plough operations)

Abstract:

The purpose of any DP control system should be: supporting/serving the main vessel operation. Plough operations performed by a vessel require certain functionalities from a control system in order to be able to fulfill the operational needs while taking into account safety measures. The first step is to identify functionally different operational situations of a plough operation from a ship motion control point of view. After this identification of the different operational situations, a proper approach for each situation has to be defined. This paper will discuss the implementation of the so called DP plough module which is able to recognize a certain operational situation and to translate the required approach for that situation into algorithm adjustments of one of the already present functional blocks within a DP control system (Estimator, Controller and allocation). This paper will also touch on the results as this DP plough module has been implemented on board and is currently being used.