

Bachelor/Study Thesis

Qualitative Assessment on Suitability of various project models method on ship design and comparison with the Design Spiral approach

In most shipyards and design offices, the established approach of designing a ship still follows the 1959 proposed Design Spiral by Evans. The Design Spiral is a proven method and even when technological possibilities advance, it remains functional and reliable by adding new sections and layers to its structure. However, this only works to a certain extent. Nowadays, shipbuilders are facing an entire set of new conditions, challenging the established way to organize and process design tasks. From new contracting mechanisms over tightened environmental regulations which demand for alternative propulsion concepts to new materials and manufacturing technologies, the shipyards need to cope with the impact from these changes in order to stay competitive.

This work shall qualitatively investigate various project methods and assess their suitability for the process of ship design in the context of upcoming challenges in the shipbuilding industry. The result is a guidance for shipyards and design offices on handling ship design in the future. To achieve the results, the following steps need to be accomplished:

1. Description of the ship design process and derivation of its characteristics. Identification of recent relevant trends and their impact on ship design.
2. Description of the conventional Design Spiral approach and identification of advantages and disadvantages with respect to practical ship design nowadays
3. Overview and introduction of various project models and their general advantages and disadvantages
4. Systematic comparison of different project models and the Design Spiral approach
5. Qualitative assessment of the suitability of each project model to ship design

This Thesis can be written in English as well as in German.

Diese Arbeit kann sowohl in Englisch als auch in Deutsch bearbeitet werden.

Interested? Please contact Junheng Zhang for further information.

Contact:

junheng.zhang@uni-rostock.de

Chair of Ship Design

Room R219

Albert-Einstein-Str. 2

18059 Rostock