# ARTIFICIAL INTELLIGENCE APPLIED IN MARINE ENGINEERING

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## ABSTRACT

Artificial Intelligence (AI) and Machine Learning (ML) are fields that have been developed over the last decades, with emphasis on intelligent systems for handwriting recognition, voice systems, autonomous systems, etcetera. Complex marine problem requires affordable, cost-effective and reliable methodologies. Artificial Intelligence shows the ability to provide solution to those problems. Nowadays AI/ML are having a great development boosted by the increased of computational capabilities. In the field of Naval Architecture, the application of AI/ML achieves a notable relevance, especially as predictive tools to assess the degree of compliance with design expectations. Many applications of AI into marine problems can be found. AI has been applied into structural optimization [1], seakeeping [2], control [3], etcetera.

Main obstacle of application AI/ML techniques is the amount of data required to learn from, affecting their ability to predict responses. This constitutes a limitation commonly overcame by scientific computation by other numerical techniques, making it sometimes unaffordable in their applications. The scientists have done great effort to improve these techniques in order to wider acceptance of AI in marine engineering application.

The key objective of this Invited Session is to take place for showing new application, to offer place for discussion about the capabilities, challenges of AI techniques in marine engineering. Therefore, we invite contributors on application of AI techniques in marine engineering with the aim of improving the knowledge in the field, showing new ideas, applications and challenges.

## REFERENCES

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