PROJECT ACRONYM AND TITLE: **Young Researchers' Career Development Project – Training New Doctoral Students**

FUNDING PROGRAMME: Croatian Science Foundation - Program Young Researchers' Career Development Project – Training New Doctoral Students – NPOO (C3 2 R2-I1)

PERSON RESPONSIBLE: **Goran Vukelić**

Project total cost	**Equal to employment funds for a young researcher**

SUMMARY AND OBJECTIVE:

The specific objectives of the doctoral research are:

- to experimentally investigate the impact of disinfectants on material degradation,
- to develop a numerical model for predicting such effects,

all with the aim of improving measures for the prevention, avoidance, and control of the spread of infectious diseases on large passenger ships.

Specifically, the intensified use of disinfectants causes surface degradation of materials, which complicates further disinfection procedures and promotes the retention of infectious agents on such damaged surfaces. Therefore, it is necessary to conduct experimental investigations into the effects of the most commonly used disinfectants (chlorine-based, alcohol-based, and UV-C radiation disinfection) on materials used for touch surfaces on ships (stainless steel and various types of plastics). Based on the obtained experimental results, it is possible to develop a computer model based on the finite element method, enabling the prediction of further material damage development and the drawing of appropriate conclusions.

Start date	End date
19 November 2024	18 November 2030

PROJECT TEAM

No.	Member	Affiliation	Role
1.	Goran Vukelić	University of Rijeka, Faculty of Maritime Studies	Mentor
2.	Marko Kopić	University of Rijeka, Faculty of Maritime Studies	Young Researcher - PhD student