



## University of Rijeka, Faculty of Maritime studies

**PROJECT ACRONYM AND TITLE:** Computer-Aided Procedures for Information Processing in Maritime Communication Systems (uniri-mladi-tehnic-23-15)

**FUNDING PROGRAMME:** University of Rijeka (UNIRI Young Scientists' Projects 2023)

**PERSON RESPONSIBLE:** Assist. Prof. Nikola Lopac, PhD

### FINANCIAL DATA

Project total cost	Overall funding assigned to PFRI
5.000,00 EUR	5.000,00 EUR

### SUMMARY

The increased adoption of digital technologies on ships, including various sensors and measurement systems, along with the introduction of innovative concepts like autonomous vessels, has significantly improved navigation safety and the overall efficiency of ship operation. These advancements result in the accumulation of large amounts of data related to navigation and ship performance, which can be utilized through the implementation of advanced functions and computer procedures. Additionally, a substantial amount of digital data generated on ships must be adequately stored and continuously transmitted to other ships or coastal stations in real-time, requiring a reliable and high-speed information transmission capability. As part of this project, research will be conducted to explore the possibilities of applying computer-aided procedures for information processing in maritime communication systems. This will involve investigating the potential applications and analyzing aspects of implementing advanced computational techniques and algorithms, including machine learning, digital signal processing, and data compression methods. The project will lead to proposals for improvements and possibilities for implementing these methods with the aim of better utilizing available maritime data and enhancing the usability of existing maritime communication systems, all in pursuit of improving maritime transport safety, reliability, and efficiency. The project will enable the development of research capacities and contribute to the University of Rijeka's strategic and development policies by strengthening collaboration and internationalization in line with the University's smart specialization strategy.

Start date	End date
01/04/2024	31/03/2025

**WEBSITE:** -

**ADDITIONAL INFO:** -