Research Group in
Maritime Cybersecurity
EC H2020 Project MariCybERA (2021-2025)

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MariCybERA

3. BENEFIT:

- Research community (15 Journal papers, 23 Conference Papers; 2 Book Chapters; 1 Book (in press); several papers in pipeline)
- Postdocs (4)
- PhD (5) and master's students
- Developing new project proposals with academic and industrial partners
- Wider community can benefit (in)directly from increased knowledge

1. PROBLEM:

- Insufficient understanding of maritime cybersecurity
- Insufficient standardization
- Absence of common regulatory framework
- Insufficient trust in maritime IT/OT
- Stakeholders' unwillingness to share information and their reluctance to become early adopters of technology

2. SOLUTION:

- Building on existing knowledge in maritime cyber-security:
- √ Desktop research
- √ Simulation analysis (MatLab, Wärtsilä bridge and engine simulators)
- √ Knowledge exchange at scientific and professional conferences, workshops, and similar events
- √ Research visits to foreign academic institutions (NTNU, TURKU, XAMK)
- √ Visits to maritime companies (ABB)
- √ Exchange of experience with industry stakeholders

4. ACTION:

- Attract funding
- Provide a realistic test vessel and its DTs
- Merge real and historical data through the APIs to realize pen-testing and develop advanced dynamic cyber-security and cyber-resiliance systems based on ML/AI algorithms
- Integration of threat modelling with Cyber Threat Intelligence (CTI) by using Malware Information Sharing Platform (MISP), e.g.

MariCybERA: https://taltech.ee/en/estonian-maritime-academy/areas-of-advance/maritime-cyber-security

TAL TECH